Connecting via Winsock to Dialog

Logging in to Dialog

Trying 31060000009998...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ****
ENTER PASSWORD:
 ****
Welcome to DIALOG

Dialog level 05.25.00D

Last logoff: 29jun09 10:05:00
Logon file405 30jun09 10:48:54
           *** ANNOUNCEMENTS ***
                    ***
*** FREE FILE OF THE MONTH (JUNE)

Inspec (File 2)
Derwent World Patents Index First View Overview (File 331)

Each month Dialog offers an opportunity to try out new or unfamiliar sources by offering $100 of free searching (either DialUnits or connect time) in one specific file. Output and Alerts charges are not included. For more details visit: http://www.dialog.com/freefile/ and then take a moment to get familiar with another great Dialog resource.

*** "Thomson File Histories" are now available directly through Dialog in selected patent and trademark files. Combined with the comprehensive patent and trademark information on Dialog, file histories give you the most complete view of a patent or trademark and its history in one place. When searching in one of the patent and trademark databases, a link to an online order form is displayed in your search results, saving you time in obtaining the file histories you need. See HELP FILEHIST for more information about how to use the link and a list of files that contain the link.

NEW FILE
***File 457, The Lancet(R)
                    ***

RESUMED UPDATING
***File 523, D&B European Financial Records
                    ***
RELOADS COMPLETED
***File 658, TRADEMARKSCAN(R) - Benelux

```
***File 659, TRADEMARKSCAN(R) - Denmark
***File 661, TRADEMARKSCAN(R) - Switzerland
***File 662, TRADEMARKSCAN(R) - Austria
***File 669, TRADEMARKSCAN(R) - Japan
***File 678, TRADEMARKSCAN(R) - Norway
                    ***
FILES REMOVED
***File 301, CHEMNAME - please use File 398 ChemSearch
***File 388, PEDS: Defense Program Summaries
***File 588, DMS-FI Contract Awards

 >>>For the latest news about Dialog products, services, content<<<
 >>>and events, please visit What's New from Dialog at          <<<
 >>>http://www.dialog.com/whatsnew/.  You can find news about   <<<
 >>>a specific database by entering HELP NEWS <file number>.    <<<
* * *
SYSTEM:HOME
Cost is in DialUnits
Menu System II: D2 version 1.8.0 term=ASCII
                     *** DIALOG HOMEBASE(SM) Main Menu ***

 Information:
  1.  Announcements (new files, reloads, etc.)
  2.  Database, Rates, & Command Descriptions
  3.  Help in Choosing Databases for Your Topic
  4.  Customer Services (telephone assistance, training, seminars,
etc.)
  5.  Product Descriptions

 Connections:
  6.  DIALOG(R) Document Delivery
  7.  Data Star(R)

    (c) 2003 Dialog, a Thomson business.      All rights reserved.

      /H = Help            /L = Logoff          /NOMENU = Command Mode


Enter an option number to view information or to connect to an online
 service.  Enter a BEGIN command plus a file number to search a
database
(e.g., B1 for ERIC).
? b 410

       30jun09 10:48:54 User226352 Session D1153.1
            $0.00    0.275 DialUnits FileHomeBase
     $0.00  Estimated cost FileHomeBase
     $0.00  Estimated cost this search
     $0.00  Estimated total session cost   0.275 DialUnits

File 410:The Chronolog 2009
       (c) 2009 Dialog. All rts. reserv.
```

```
      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi
HILIGHT set on as ''
HILIGHT set on as ''
? b biochem
       30jun09 10:49:07 User226352 Session D1153.2
            $0.00    0.115 DialUnits File410
     $0.00  Estimated cost File410
     $0.05  TELNET
     $0.05  Estimated cost this search
     $0.05  Estimated total session cost   0.390 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R) 1926-2009/Jun W3
         (c) 2009 The Thomson Corporation
  File   6:NTIS 1964-2009/Jul W1
         (c) 2009 NTIS, Intl Cpyrght All Rights Res
  File  24:CSA Life Sciences Abstracts 1966-2009/Jul
         (c) 2009 CSA.
  File  34:SciSearch(R) Cited Ref Sci 1990-2009/Jun W3
         (c) 2009 The Thomson Corp
  File  40:Enviroline(R) 1975-2008/May
         (c) 2008 Congressional Information Service
*File  40: This file is closed and will no longer update. For
similar data, please search File 76-Environmental Sciences.
  File  41:Pollution Abstracts 1966-2009/Jul
         (c) 2009 CSA.
  File  45:EMCare 2009/Jun W3
         (c) 2009 Elsevier B.V.
  File  50:CAB Abstracts 1972-2009/Jun W4
         (c) 2009 CAB International
  File  65:Inside Conferences 1993-2009/Jun 29
         (c) 2009 BLDSC all rts. reserv.
  File  71:ELSEVIER BIOBASE 1994-2009/Jun W4
         (c) 2009 Elsevier B.V.
*File  71: The file has been reloaded. Accession numbers
have changed.
  File  72:EMBASE 1993-2009/Jun 26
         (c) 2009 Elsevier B.V.
  File  73:EMBASE 1974-2009/Jun 26
         (c) 2009 Elsevier B.V.
  File  76:Environmental Sciences 1966-2009/Jul
         (c) 2009 CSA.
  File  98:General Sci Abs 1984-2009/Jun
         (c) 2009 The HW Wilson Co.
  File 103:Energy SciTec 1974-2009/Jun B1
         (c) 2009 Contains copyrighted material
*File 103: For access restrictions see Help Restrict.
  File 136:BioEngineering Abstracts 1966-2007/Jan
         (c) 2007 CSA.
```

```
*File 136: This file is closed.
  File 143:Biol. & Agric. Index 1983-2009/May
         (c) 2009 The HW Wilson Co
  File 144:Pascal 1973-2009/Jun W4
         (c) 2009 INIST/CNRS
  File 154:MEDLINE(R) 1990-2009/Jun 26
         (c) format only 2009 Dialog
  File 155:MEDLINE(R) 1950-2009/Jun 26
         (c) format only 2009 Dialog
  File 156:ToxFile 1965-2009/Jun W3
         (c) format only 2009 Dialog
  File 162:Global Health 1983-2009/Jun W4
         (c) 2009 CAB International
  File 172:EMBASE Alert 2009/Jun 29
         (c) 2009 Elsevier B.V.
  File 305:Analytical Abstracts 1980-2009/May W3
         (c) 2009 Royal Soc Chemistry
*File 305: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling.  See HELP ALERT.
  File 369:New Scientist 1994-2009/Jun W3
         (c) 2009 Reed Business Information Ltd.
  File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
*File 370: This file is closed (no updates). Use File 47 for more
current
information.
  File 393:Beilstein Database - Abstracts 2008/Q2
         (c) 2008 Beilstein GmbH
  File 399:CA SEARCH(R) 1967-2009/UD=15101
         (c) 2009 American Chemical Society
*File 399: Use is subject to the terms of your user/customer
agreement.
IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.
  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 2006 The Thomson Corp

      Set  Items  Description
      ---  -----  -----------
? s (haemophilus and influnzae) or H(w)influenzae or haemophilus
Processing
Processed  20 of  29 files ...
Completed processing all files
          170017  HAEMOPHILUS
              19  INFLUNZAE
         8199123  H
          148521  INFLUENZAE
           35814  H(W)INFLUENZAE
          170017  HAEMOPHILUS
      S1  172425  (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
                  HAEMOPHILUS
? s s1 and (lung or tracehal or intratracheal or aersol)
          172425  S1
```

```
         3348901  LUNG
               4  TRACEHAL
           91543  INTRATRACHEAL
             136  AERSOL
      S2   10184  S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
? s s2 nor PY>2005
>>>Term "NOR" in invalid position
? s s2 not PY>2005
Processing
Processed  10 of  29 files ...
Completed processing all files
           10184  S2
        27086825  PY>2005
      S3    8162  S2 NOT PY>2005
? s s3 and (vaccin? or immuniz? or administr?)
Processing
Processed  10 of  29 files ...
Processing
Processed  20 of  29 files ...
Completed processing all files
            8162  S3
         1539136  VACCIN?
          808157  IMMUNIZ?
         8556708  ADMINISTR?
      S4    2469  S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
? rd s4

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
Processing - Examined 800 records
Processing - Examined 2000 records
      S5    1310  RD S4  (unique items)
? ds

Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
? t s5/7/1-10
>>>Format 7 is not valid in file 143

 5/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

0020914265   BIOSIS NO.: 200900254599
Does Low Antibiotic Consumption Influence Microbiological Findings in
```

Patients with COPD-Exacerbations?
AUTHOR: Harboe Z B (Reprint); Knudsen J D; Wandall J H
AUTHOR ADDRESS: Frederiksberg Univ Hosp, Copenhagen, Denmark**Denmark
JOURNAL: Abstracts of the Interscience Conference on Antimicrobial Agents
and Chemotherapy 45 p398 2005 2005
CONFERENCE/MEETING: 45th Interscience Conference on Antimicrobial Agents
and Chemotherapy Washington, DC, USA December 16 -19, 2005; 20051216
ISSN: 0733-6373
DOCUMENT TYPE: Meeting; Meeting Poster
RECORD TYPE: Citation
LANGUAGE: English

5/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0020913573 BIOSIS NO.: 200900253907
S-013420, a New Bridged Bicyclic Ketolide:II. In Vivo Activity against Experimental Animal Infection Models
AUTHOR: Tsuji M (Reprint); Miwa H; Takema M; Kanaoka E; Yoshikawa T; Shimada J; Kuwahara S
AUTHOR ADDRESS: Shionogi and Co Ltd, Osaka, Japan**Japan
JOURNAL: Abstracts of the Interscience Conference on Antimicrobial Agents
and Chemotherapy 45 p220-221 2005 2005
CONFERENCE/MEETING: 45th Interscience Conference on Antimicrobial Agents
and Chemotherapy Washington, DC, USA December 16 -19, 2005; 20051216
ISSN: 0733-6373
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

5/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

19134784 BIOSIS NO.: 200600480179
Florfenicol - Pharmacodynamic, pharmacokinetics and clinical efficacy of oral formulations in domestic animals - A systematic review
AUTHOR: Scuka L (Reprint)
AUTHOR ADDRESS: Krka Dd, Ljubljana, Slovenia**Slovenia
AUTHOR E-MAIL ADDRESS: leon.scuka@krka.biz
JOURNAL: Veterinarski Glasnik 59 (5-6): p635-654 2005 2005
ISSN: 0350-2457
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Porcine respiratory disease complex (PRDC) is a major economic problem for swine producers world-wide.Pharmacodynamic, pharmacokinetics and clinical efficacy of florfenicol oral formulations in domestic animals were evaluated. For this purpose the systematic review and meta-analysis were done.In vitro efficacy of florfenicol showed that this drug is highly effective against most important respiratory pathogens. All these facts are shown in our survey.Three studies in pigs were relevant to include in the meta-analysis, which showed that results in the florfenicol group were better than in comparative control groups in all observed parameters: clinical signs, lung lesions and reisolation of Actinobacillus pleuropneumoniae (P < 0.001). A second meta-analysis with 7 studies showed that the usage of florfenicol reduces mortality in pig herds with PRDC (P < 0.05).Other field trials in pigs using flortenicol oral forms where reviewed. After treatment with florfenicol oral solution there was a significant drop of mortality in both groups of pigs (P < 0.01); eg. one using florfenicol oral solution in treating PRDC (n=85) and another mixed pneumo-enteric infection (n=54).Analysis of data when using premix in pigs (n=118) also suggests that a medicated premix has a favorable anti-infectious effect on pigs, irrespective of the group of animals or the evolution stage of the disease.Finally, favourable effect of flortenicol in treating swine ileitis was also presented.Regarding their pharmacokinetics, in vitro and clinical efficacy of florfenicol oral forms, they should be considered as a powerful tool for combating complex infections that are frequently met in intensive animal production.

5/7/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

19019132 BIOSIS NO.: 200600364527
Mucosal vaccination for bacterial respiratory infection
AUTHOR: Dunkley M (Reprint)
AUTHOR ADDRESS: Hunter Immunol Pty Ltd, Newcastle, NSW, Australia**

Australia
JOURNAL: Tissue Antigens 66 (5): p402 NOV 2005 2005
CONFERENCE/MEETING: 35th Annual Scientific Meeting of the Australasian-Society-for-Immunology/14th International HLA and Immunogenetics Workshops Melbourne, AUSTRALIA November 29 -December 02,
2005; 20051129
SPONSOR: Australasian Soc Immunol
ISSN: 0001-2815
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

5/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18874527 BIOSIS NO.: 200600219922
Management of advanced ARDS complicated by bilateral pneumothoraces with
high-frequency oscillatory ventilation in an adult
AUTHOR: Galvin I; Krishnamoorthy R; Saad R S G (Reprint)
AUTHOR ADDRESS: Royal Albert Edward Infirm, Intens Care Unit, Wigan Lane,
Wigan WN1 2NN, UK**UK
AUTHOR E-MAIL ADDRESS: rsgsaad@hotmail.com
JOURNAL: British Journal of Anaesthesia 93 (3): p454-456 SEP 2004 2004
ISSN: 0007-0912
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We report the case of a 33-yr-old patient with adult respiratory
distress syndrome (ARDS) complicated by bilateral pneumothoraces, who was
successfully treated with high-frequency oscillatory ventilation
following failure to respond to conventional ventilation. The role of
high-frequency ventilation in the management of ARDS and air leaks is
discussed.

5/7/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18749077 BIOSIS NO.: 200600094472
Ertapenem - A review of its use in the treatment of bacterial infections

AUTHOR: Keating Gillian M (Reprint); Perry Caroline M
AUTHOR ADDRESS: Adis Int Ltd, 41 Centorian Dr,Privatre Bag 65901, Auckland
1311, New Zealand**New Zealand
AUTHOR E-MAIL ADDRESS: demail@adis.co.nz
JOURNAL: Drugs 65 (15): p2151-2178 2005 2005
ISSN: 0012-6667
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The Group 1, 1 beta-methyl carbapenem ertapenem (Invanz (R)) is approved for parenteral use in patients with complicated intra-abdominal infection (cIAI), community-acquired pneumonia (CAP) and acute pelvic infection caused by susceptible strains of certain designated organisms in both the US and the EU. Additional approved indications in the US include complicated skin and skin structure infection (cSSSI) and complicated urinary tract infection (cUTI). Ertapenem is approved for use in adults in both the US and the EU and in paediatric patients aged 3 months in the US.Ertapenem has a broad spectrum of in vitro activity against Gram-negative pathogens, including extended-spectrum beta-lactamase (ESBL)- and AmpC-producing Enterobacteriaceae, Gram-positive pathogens and anaerobic pathogens. It has similar efficacy to comparator antibacterials such as piperacillin/tazobactam in cSSSI (including diabetic foot infection), cIAI and acute pelvic infection and ceftriaxone with or without metronidazole in cIAI, cUTI and CAP. The drug has also shown efficacy in the treatment of paediatric patients with complicated community-acquired bacterial infections. Ertapenem has a convenient once-daily administration schedule and is generally well tolerated. Thus, ertapenem is an important option for the empirical treatment of complicated community-acquired bacterial infections in hospitalised patients.Pharmacological Properties Ertapenem demonstrated good in vitro activity against clinically relevant Enterobacteriaceae (e.g. Escherichia coli, Klebsiella spp., Citrobacter spp., Enterobacter spp., Morganella morganii, Proteus spp. and Serratia marcescens); the minimum concentration inhibiting 90% of strains (MIC90) was generally <= 1 mg/L and susceptibility rates, where reported, were 100%. Ertapenem was

active against ESBL- and AmpC-producing Enterobacteriaceae, although MIC90 values for these strains were raised. Ertapenem was also active against Haemophilus influenzae and Moraxella catarrhalis, although it had poor activity against Pseudomonas aeruginosa and Acinetobacter spp.Ertapenem had good in vitro activity against the Gram-positive pathogens Staphylococcus aureus (methicillin/oxacillin-susceptible isolates), coagulase-negative staphylococci (oxacillin-susceptible isolates), Streptococcus pneumoniae (penicillin-susceptible and -intermediate isolates), S. agalactiae and S. pyogenes, with MIC90 values of <= 0.5 mg/L and susceptibility rates, where reported, of 100%. Ertapenem lacked activity against methicillin/oxacillin-resistant staphylococci, Enterococcus faecalis and E. faecium.Ertapenem had good in vitro activity against a wide range of anaerobes, including the Bacteroides fragilis group of pathogens, Clostridium clostridio-forme, C. perfringens, Eubacterium lentum, Fusobacterium spp., Peptostreptococcus spp., Porphyromonas spp. and Prevotella spp., with MIC90 values of <= 4 mg/L and, where reported, susceptibility rates of 97-100%.The ertapenem MIC90 for various pathogens remained below the mean total ertapenem plasma concentration for 24 hours and below the mean unbound ertapenem plasma concentration for >= 8 hours after a single intravenous 1 g dose. Ertapenem had rapid, time-dependent bactericidal activity and a minimal inoculum effect.Ertapenem is generally stable against hydrolysis by various beta-lactamases, such as penicillinases, cephalosporinases and ESBLs, although it may be affected by carbapenemases. However, it is thought that additional factors besides the presence of carbapenemases, such as impermeability, are needed for substantive carbapenem resistance to develop. It is thought unlikely that ertapenem will select for P. aeruginosa isolates with cross resistance to other carbapenems in the clinical setting. The frequency of bowel colonisation with ertapenem-resistant Enterobacteriaceae was not increased with ertapenem therapy in three clinical studies in patients with cIAI.No accumulation of ertapenem was seen at steady state following intravenous or intramuscular administration; the mean bioavailability of the drug following intramuscular administration is approximate to 90%. Ertapenem is highly plasma protein bound in a nonlinear

concentration-dependent manner, and achieves good penetration into lung tissue and skin blister fluid following intravenous administration. The main route of elimination for ertapenem is renal and the pharmacokinetics of the drug are altered to a clinically significant extent in patients with advanced or endstage renal impairment. The plasma elimination half-life of ertapenem (approximate to 4 hours) allows for once-daily dosing.Clinical Efficacy The efficacy of ertapenem in adults with complicated bacterial infections has been examined in large well designed trials.The efficacy of ertapenem was equivalent to that of piperacillin/tazobactam in the treatment of cSSSI with clinical cure rates of 82% and 84% in the respective treatment groups at the test-of-cure (TOC) visit. In addition, ertapenem had similar efficacy to piperacillin/tazobactam in diabetic foot infection, with favourable clinical response rates of 94% and 92% in the respective treatment groups at the discontinuation of intravenous therapy.Ertapenem had similar efficacy to piperacillin/tazobactam in three trials in patients with cIAI with clinical cure rates of 82-94% and 82-93% and combined clinical and microbiological cure rates of 87% and 81% in the corresponding treatment groups at the TOC visit. Combined clinical and microbiological cure rates of 84% and 85% were reported in ertapenem and ceftriaxone plus metronidazole recipients in a fourth trial.The efficacy of ertapenem was equivalent to that of ceftriaxone in two trials in patients with cUTI with microbiological eradication rates of >= 85% at the TOC visit, and in two trials in patients with CAP with clinical cure rates of > 90% at the TOC visit.Ertapenem had equivalent efficacy to piperacillin/tazobactam in women with acute pelvic infection with cure rates of 94% and 92% in the respective treatment groups at the TOC visit.Subgroup analyses demonstrated the efficacy of ertapenem in patients with Enterobacteriaceae infections, polymicrobial infections and mixed anaerobic infections. In addition, results of a retrospective chart review showed the efficacy of ertapenem in patients with infections caused by ESBL-producing organisms.Ertapenem was effective in paediatric patients aged 3 months to 17 years with complicated bacterial infections,

according to the results of two randomised, multicentre studies. In patients with cUTI, microbiological success rates were 87% with ertapenem and 90% with ceftriaxone. Clinical success rates with ertapenem and ceftriaxone were 96% and 100% in patients with cSSSI and 96% and 96% in patients with CAP. Moreover, clinical success rates with ertapenem and ticarcillin/clavulanic acid were 84% and 64% in patients with cIAI and 100% and 100% in patients with acute pelvic infection.Tolerability Intravenous ertapenem was generally well tolerated in patients with complicated bacterial infections, with most adverse events being of mild-to-moderate severity. In adults with complicated bacterial infections who received ertapenem, the most commonly reported drug-related adverse effects included diarrhoea, infused vein complications, nausea, headache, vaginitis, phlebitis/thrombophlebitis and vomiting. Seizures were reported in 0.5% of ertapenem recipients. The most commonly reported drug-related laboratory abnormalities included increased levels of ALT, AST, serum alkaline phosphatase, platelets and eosinophils. Intramuscular ertapenem was also generally well tolerated in adults with bacterial infections; the most commonly reported local symptoms at the injection site included tenderness, pain, induration and ecchymosis.The adverse event profile of ertapenem in paediatric patients with complicated bacterial infections was similar to that seen in adults. The most commonly reported drug-related adverse effects included diarrhoea, infusion site pain, infusion site erythema and vomiting, and the most commonly reported drug-related laboratory abnormalities included decreased neutrophil counts and increased ALT and AST levels.

5/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18720022 BIOSIS NO.: 200600065417
Production of nontypeable Haemophilus influenzae HtrA by recombinant Bordetella pertussis with the use of filamentous hemagglutinin as a carrier
AUTHOR: Alonso Sylvie; Willery Eve; Renauld-Mongenie Genevieve; Locht Camille (Reprint)
AUTHOR ADDRESS: Inst Pasteur, INSERM, U629, 1 Rue Prof Calmette, F-59019

Lille, France**France
AUTHOR E-MAIL ADDRESS: camille.locht@pasteur-lille.fr
JOURNAL: Infection and Immunity 73 (7): p4295-4301 JUL 2005 2005
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Bordetella pertussis, the etiologic agent of whooping cough, is a highly infectious human pathogen capable of inducing mucosal and systemic immune responses upon a single intranasal administration. In an attenuated, pertussis toxin (PTX)-deficient recombinant form, it may therefore constitute an efficient bacterial vector that is particularly well adapted for the delivery of heterologous antigens to the respiratory mucosa. Filamentous hemagglutinin (FHA) has been used as a carrier to present foreign antigens at the bacterial surface, thereby inducing local, systemic, and protective immune responses to these antigens in mice. Both full-length and truncated (Fha44) forms of FHA have been used for antigen presentation. To investigate the effect of the carrier (FHA or Fha44) on antibody responses to passenger antigens, we genetically fused the HtrA protein of non-typeable Haemophilus influenzae to either FRA form. The fha-htrA and Fha44 gene-htrA hybrids were expressed as single copies inserted into the chromosome of PTX-deficient B. pertussis. Both chimeras were secreted into the culture supernatants of the recombinant strains and were recognized by anti-FHA and anti-HtrA antibodies. Intranasal infection with the strain producing the FRA-HtrA hybrid led to significantly higher anti-HtrA and anti-FHA antibody titers than those obtained in mice infected with the Fha44-HtrA-producing strain. Interestingly, the B. pertussis strain producing the Fha44-HtrA chimera colonized the mouse lungs more efficiently than the parental, Fha44-producing strain and gave rise to higher anti-FHA antibody titers than those induced by the parental strain.

5/7/8 (Item 8 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

18597277 BIOSIS NO.: 200510291777
Evaluation of the influence of the bacterial vaccines pneumo-23 and Act-Hib on the course of the chronic inflammatory process of the respiratory organs in children
AUTHOR: Ryzhov A A (Reprint); Katosova L K; Kostinov M P; Volkov I K; Magarshak O O
AUTHOR ADDRESS: Mechnikov Res Inst Vaccines and Sera, Pediat Res Inst, Moscow, Russia**Russia
JOURNAL: Zhurnal Mikrobiologii Epidemiologii i Immunobiologii (3): p84-87
MAY-JUN 2005 2005
ISSN: 0372-9311
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: Russian

ABSTRACT: The effectiveness and safety of vaccination of children having chronic inflammatory lung diseses with Pneumo-23 and Act-HIB were evaluated. The group under study included 38 children having chronic pneumonia, congenital defects of lung development, Kartagener's syndrome, mucoviscidosis; of these children, 25 were vaccinated with Pneumo-23 and 13 - with Act-HIB. For comparison a group of 40 children with the same pathology, but not vaccinated, was used. A favorable course of the postvaccinal period was noted. Prior to vaccination Streptococcus pneumoniae in association with Haemophilus influenzae were isolated from all patients; in a year after vaccination with Pneumo-23 these microorganisms were isolated only in monoculture: S. pneumoniae in 3 out of 25 cases (88% elimination) and H. influenzae in 10 out of 25 cases (60% elimination).

5/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18551565 BIOSIS NO.: 200510246065
Risk factors of parapneumonic effusions in children
ORIGINAL LANGUAGE TITLE: Facteurs de risque de survenue des pleuropneumopathies bacteriennes en pediatrie
AUTHOR: Thumerelle C (Reprint); Santos C; Morillon S; Bott L; Pouessel G; Deschildre A
AUTHOR ADDRESS: CHRU Lille, Hop Jeanne de Flandre, Unite Pneumol Allergol Pediat, Lille, France**France
JOURNAL: Archives de Pediatrie 12 (6): p827-829 JUN 2005 2005
ISSN: 0929-693X

DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: French

5/7/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18506351 BIOSIS NO.: 200510200851
In vivo pharmacodynamic characterization of a new oral streptogramin, XRP2868, in the murine thigh and lung infection models.
AUTHOR: Andes D R (Reprint); Craig W A
JOURNAL: Abstracts of the Interscience Conference on Antimicrobial Agents
and Chemotherapy 44 p38 OCT-NOV 2004 2004
CONFERENCE/MEETING: 44th Interscience Conference on Antimicrobial Agents
and Chemotherapy Washington, DC, USA October 30 -November 02, 2004; 20041030
ISSN: 0733-6373
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English
? ds

Set Items Description
S1 172425 (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR HAEMOPHIL-
US
S2 10184 S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3 8162 S2 NOT PY>2005
S4 2469 S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5 1310 RD S4 (unique items)
? s (vaccin? or immuniz? or adminisr?) (5n) (lung or tracehal or intratracheal or aersol or mucosal)
Processing
Processed 20 of 29 files ...
Completed processing all files
1539136 VACCIN?
808157 IMMUNIZ?
139 ADMINISR?
3348901 LUNG
4 TRACEHAL
91543 INTRATRACHEAL
136 AERSOL
528028 MUCOSAL
S6 36848 (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR TRACEHAL
OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
? ds

```
Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
? s s1 and s6
          172425  S1
           36848  S6
      S7     888  S1 AND S6
? rd s7

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
      S8     327  RD S7  (unique items)
? s s8 not PY>2005
Processing
Processed  20 of  29 files ...
Completed processing all files
             327  S8
        27086825  PY>2005
      S9     274  S8 NOT PY>2005
? t s9/7/1-10
>>>Format 7 is not valid in file 143

 9/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

0020189656   BIOSIS NO.: 200800236595
Characterization of the protective response induced by a mucosal
  immunization strategy vs. one of parenteral priming and
  mucosal boosting using an adhesin-based vaccine candidate
  against otitis media caused by nontypeable Haemophilus influenzae
AUTHOR: Hill S R (Reprint); Novotny L A; Bakaletz L O
AUTHOR ADDRESS: Columbus Childrens Res Inst, Columbus, OH USA**USA
JOURNAL: Abstracts of the General Meeting of the American Society for
Microbiology  105 p214 2005 2005
CONFERENCE/MEETING: 105th General Meeting of the
American-Society-for-Microbiology  Atlanta, GA, USA  June 05 -09,
2005;
20050605
SPONSOR: Amer Soc Microbiol
ISSN: 1060-2011
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
```

LANGUAGE: English

9/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

19019132 BIOSIS NO.: 200600364527
Mucosal vaccination for bacterial respiratory infection
AUTHOR: Dunkley M (Reprint)
AUTHOR ADDRESS: Hunter Immunol Pty Ltd, Newcastle, NSW, Australia** Australia
JOURNAL: Tissue Antigens 66 (5): p402 NOV 2005 2005
CONFERENCE/MEETING: 35th Annual Scientific Meeting of the Australasian-Society-for-Immunology/14th International HLA and Immunogenetics Workshops Melbourne, AUSTRALIA November 29 -December 02,
2005; 20051129
SPONSOR: Australasian Soc Immunol
ISSN: 0001-2815
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

9/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18597277 BIOSIS NO.: 200510291777
Evaluation of the influence of the bacterial vaccines pneumo-23 and Act-Hib
on the course of the chronic inflammatory process of the respiratory organs in children
AUTHOR: Ryzhov A A (Reprint); Katosova L K; Kostinov M P; Volkov I K; Magarshak O O
AUTHOR ADDRESS: Mechnikov Res Inst Vaccines and Sera, Pediat Res Inst, Moscow, Russia**Russia
JOURNAL: Zhurnal Mikrobiologii Epidemiologii i Immunobiologii (3): p84-87
MAY-JUN 2005 2005
ISSN: 0372-9311
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: Russian

ABSTRACT: The effectiveness and safety of vaccination of children having chronic inflammatory lung diseses with Pneumo-23 and Act-HIB were evaluated. The group under study included 38 children having chronic
pneumonia, congenital defects of lung development, Kartagener's syndrome,

mucoviscidosis; of these children, 25 were vaccinated with Pneumo-23 and 13 - with Act-HIB. For comparison a group of 40 children with the same pathology, but not vaccinated, was used. A favorable course of the postvaccinal period was noted. Prior to vaccination Streptococcus pneumoniae in association with Haemophilus influenzae were isolated from all patients; in a year after vaccination with Pneumo-23 these microorganisms were isolated only in monoculture: S. pneumoniae in 3 out of 25 cases (88% elimination) and H. influenzae in 10 out of 25 cases (60% elimination).

9/7/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18423601 BIOSIS NO.: 200510118101
Role of an immunodominant T cell epitope of the P6 protein of nontypeable Haemophilus influenzae in murine protective immunity
AUTHOR: McMahon Michelle; Murphy Timothy F; Kyd Jennelle; Thanavala Yasmin (Reprint)
AUTHOR ADDRESS: Roswell Pk Canc Inst, Dept Immunol, Elm and Carlton St, Buffalo, NY 14263 USA**USA
AUTHOR E-MAIL ADDRESS: yasmin.thanavala@roswellpark.org
JOURNAL: Vaccine 23 (27): p3590-3596 MAY 20 05 2005
ISSN: 0264-410X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae (NTHI) is a common cause of otitis media in children and lower respiratory tract infection in adults with chronic lung disease. The highly conserved P6 protein of NTHI infection is under evaluation as a vaccine antigen in several animal models. To elucidate the role of cellular immune response to P6 in protective immunity, the goal of this study was to identify and characterize T cell epitope(s) on P6 and to investigate the role of these epitope(s) in eliciting antigen specific antibody responses and in mediating pulmonary clearance of NTHI. We report that T cells from BALB/c immunized with P6 recognize a single, immunodominant region, represented by 15 amino acids (residues 41-55) of the P6 protein. To verify the ability of this epitope to elicit T cell responses to the P6 protein,

mice were immunized with a synthetic peptide corresponding to the sequence of dominant peptide. T cells isolated from mice primed in vivo with the peptide responded following in vitro stimulation with either the peptide or with the whole P6 molecule. Substitution of single amino acids and N or C terminal truncations of the dominant peptide resulted in complete abrogation of the response, implicating their importance to the T cell response. Furthermore, mucosal immunization of mice with a chimeric peptide that encompassed the dominant T cell epitope and a putative B cell epitope resulted in enhanced bacterial clearance following pulmonary challenge with NTHI. Collectively, these results establish that, in a mouse model, P6 contains a single immunodominant T cell epitope and this epitope plays an important role in protective immune responses induced by immunization with P6.

9/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18347381 BIOSIS NO.: 200510041881
Vaccines for otitis media: proposals for overcoming obstacles to progress
AUTHOR: Murphy Timothy F (Reprint); Bakaletz Lauren O; Kyd Jennelle M; Watson Bracie; Klein David L
AUTHOR ADDRESS: Buffalo Vet Affairs Med Ctr, Med Res 151,3495 Bailey Ave, Buffalo, NY 14215 USA**USA
AUTHOR E-MAIL ADDRESS: murphyt@buffalo.edu
JOURNAL: Vaccine 23 (21): p2696-2702 APR 15 05 2005
ISSN: 0264-410X
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Otitis media is a common problem with enormous morbidity worldwide. The development of vaccines to prevent otitis media would have an important human and economic impact. A striking lack of progress in the development, production and clinical testing of vaccines to prevent otitis media has occurred in the past decade. This review outlines a series of specific proposals intended to advance vaccine development for

otitis media. (c) 2004 Elsevier Ltd, All rights reserved.

9/7/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18103823 BIOSIS NO.: 200500009071
Mucosal immunology of vaccines against pathogenic nasopharyngeal bacteria
AUTHOR: Zhang Q; Finn A (Reprint)
AUTHOR ADDRESS: Dept Clin Sci S BristolInst Child HlthUBHT Educ Ctr, Univ Bristol, Upper Maudlin St, Bristol, Avon, BS2 8AE, UK**UK
AUTHOR E-MAIL ADDRESS: Adam.Finn@bristol.ac.uk
JOURNAL: Journal of Clinical Pathology (London) 57 (10): p1015-1021 October 2004 2004
MEDIUM: print
ISSN: 0021-9746
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The introduction of Haemophilus influenzae type b conjugate vaccines during the 1990s was followed by dramatic decreases both in the incidence of Haemophilus influenzae type b related invasive disease and in nasopharyngeal carriage of the organism. The extent of this effect has been influenced by the fact that Haemophilus influenzae type b conjugate vaccines reduce nasopharyngeal carriage and induce herd immunity. Based on the success of Haemophilus influenzae type b conjugate vaccines, chemical conjugation has been applied to the development of pneumococcal and meningococcal polysaccharide conjugate vaccines. Evidence has begun to accumulate that these new polysaccharide based conjugate vaccines can also reduce nasopharyngeal carriage and can induce immune responses at the local mucosal level, which may be responsible for these effects. This article reviews recent studies on mucosal immune responses induced by polysaccharide based vaccines and some protein vaccine antigens against several pathogenic nasopharyngeal bacteria, and discusses the mechanisms and functions of these immune responses that may help our understanding of mucosal immune responses to both immunisation and infection.

9/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18078331 BIOSIS NO.: 200400459560
Intranasal immunization with outer membrane protein P6 and cholera toxin
induces specific sinus mucosal immunity and enhances sinus clearance of
nontypeable Haemophilus influenzae
AUTHOR: Sabirov Albert; Kodama Satoru; Sabirova Nailya; Mogi Goro; Suzuki
Masashi (Reprint)
AUTHOR ADDRESS: Dept Otolaryngol, Oita Med Univ, 1-1 Idaigaoka, Hasama,
Oita, 8795593, Japan**Japan
AUTHOR E-MAIL ADDRESS: sabiroa@med.amc.edu; suzukim@oita-med.ac.jp
JOURNAL: Vaccine 22 (23-24): p3112-3121 August 13, 2004 2004
MEDIUM: print
ISSN: 0264-410X _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae (NTHi) is one of the leading pathogens in sinusitis. One of the outer membrane proteins of NTHi, P6, is a common antigen to all strains and is an attractive candidate for a subunit bacterial vaccine. In this study, we characterized normal sinus mucosa (SM) and investigated the potential of intranasal immunization with P6 and cholera toxin (CT) for induction of mucosal protective immunity against NTHi in the maxillary sinuses of rats. Intranasal immunization induced P6-specific sinus mucosal and systemic immunological responses, mainly of the IgA and IgG isotype. The protective effect of intranasal immunization was demonstrated by enhancement of sinus clearance of NTHi. The present study showed that unilateral intranasal immunization has a capacity to induce protective immunity against NTHi in the bilateral maxillary sinuses, Systemic administration of the vaccine did not affect sinus clearance of NTHi. These findings suggest that a nasal vaccine might be useful for preventing sinusitis. Copyright 2004 Elsevier Ltd. All rights reserved.

9/7/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17559395 BIOSIS NO.: 200300514758
[Vaccins on mucosal surfaces.]
ORIGINAL LANGUAGE TITLE: Vaccins muqueux.
AUTHOR: Bout D; Mevelec M-N; Velge-Roussel F; Dimier-Poisson I; Lebrun M
JOURNAL: Archives de Pediatrie 10 (6): p565-570 Juin 2003 2003
MEDIUM: print
ISSN: 0929-693X
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: French

9/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17508368 BIOSIS NO.: 200300463979
Mucosal vaccination against encapsulated respiratory bacteria: New potentials for conjugate vaccines?
AUTHOR: Jakobsen H; Jonsdottir I (Reprint)
AUTHOR ADDRESS: Department of Immunology, Landspitali-University Hospital, Hringbraut, 101, Reykjavik, Iceland**Iceland
AUTHOR E-MAIL ADDRESS: ingileif@landspitali.is
JOURNAL: Scandinavian Journal of Immunology 58 (2): p119-128 August 2003
2003
MEDIUM: print
ISSN: 0300-9475 _(ISSN print)
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Polysaccharide (PS)-encapsulated bacteria such as Haemophilus influenzae type b (Hib), Streptococcus pneumoniae (pneumococcus), Neisseria meningitides (meningococcus) and group B streptococcus (GBS), cause a major proportion of disease in early childhood. Native PS vaccines are immunogenic and provide protection against disease in healthy adults but do not induce immunological memory.

PSs are T-cell-independent antigens and do not elicit antibodies in infants and young children, but by conjugating PS to proteins they become T-cell dependent and immunogenic at an early age. Despite excellent efficacy of PS-protein conjugate vaccines against invasive disease, protection against mucosal infections such as pneumococcal otitis media has been less efficacious. Circulating PS-specific antibodies may protect against infections at mucosal sites, but mucosal immunoglobulin A

antibodies may also contribute significantly to protection against mucosal infections. Mucosal immunization of experimental animals with conjugate vaccines against Hib, pneumococcus, meningococcus and GBS induces systemic and mucosal immune responses, which provide protection against carriage, otitis media and invasive disease in a variety of challenge models, providing new means for protection against encapsulated bacteria. In addition, mucosal immunization of neonatal mice with a pneumococcal conjugate and the nontoxic adjuvant LT-K63 has been superior to parenteral immunization in eliciting protective antibodies and PS-specific memory, and thus circumventing the limitations of antibody responses to PS that are responsible for enhanced susceptibility of neonates and infants to infections caused by encapsulated bacteria. Through T-cell dependent enhanced immunogenicity of PS-protein conjugate vaccines, mucosal immunization could be an attractive approach for early life immunization against encapsulated bacteria.

9/7/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17507483 BIOSIS NO.: 200300463094
Efficacy of the 26-kilodalton outer membrane protein and two P5 fimbrin-derived immunogens to induce clearance of nontypeable Haemophilus influenzae from the rat middle ear and lungs as well as from the chinchilla middle ear and nasopharynx.
AUTHOR: Kyd Jennelle M (Reprint); Cripps Allan W; Novotny Laura A; Bakaletz Lauren O
AUTHOR ADDRESS: Division of Health, Design and Science, University of Canberra, Canberra, ACT, 2601, Australia**Australia
AUTHOR E-MAIL ADDRESS: jennelle.kyd@canberra.edu.au; bakaletl@pediatrics.ohio-state.edu
JOURNAL: Infection and Immunity 71 (8): p4691-4699 August 2003 2003
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The rat middle ear and lung clearance model has been used to show that the nontypeable Haemophilus influenzae 26-kDa outer membrane protein OMP26 is highly efficacious as a mucosal immunogen, inducing significantly enhanced clearance in immunized rats upon direct challenge of these two anatomic sites. Similarly, the chinchilla model of middle ear and nasopharyngeal clearance has been used to show that two P5

```
  fimbrin adhesin-derived immunogens, LB1 and lipoprotein D
  (LPD)-LB1(f)2,1,3, are highly efficacious as parenteral immunogens.
Both
  induced significantly augmented clearance of nontypeable H.
  influenzae upon challenge of these sites. Here, these three
  nontypeable H. influenzae immunogens in addition to six
  bovine serum albumin and keyhole limpet hemocyanin conjugates of the
  synthetic peptide LB1(f) were assayed for relative efficacy in the
  reciprocal rodent model system. OMP26 was assayed in the chinchilla
host
  by a parenteral immunization route, with clearance of the middle
ear and
  nasopharynx used as outcome measures. Both LB1 and LPD-LB1(f)2,1,3
were
  assayed in the rat host with a mucosal immunization route and
  clearance of nontypeable H. influenzae from the lungs and
  middle ears as outcome measures. Both of the immunogens were found
to
  induce a high-titered and specific immune responses in the
heterologous
  host system. Moreover, each was found to be highly efficacious in
the
  reciprocal host system, providing strong support for the continued
  development and inclusion of both OMP26 and P5 fimbrin-derived
peptides
  as candidate vaccine antigens directed at otitis media caused by
  nontypeable H. influenzae.
? ds

Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
               US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
               OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
? s s8 not PY>2004
Processing
Processed  10 of  29 files ...
Completed processing all files
               327  S8
         34860772  PY>2004
     S10     259  S8 NOT PY>2004
? ds
```

```
Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? ds

Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
? ds

Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
? ds
```

```
Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
? ds

Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
? ds

Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
? ds
```

```
Set     Items   Description
S1     172425   (HAEMOPHILUS AND INFLUNZAE) OR H(W)INFLUENZAE OR
HAEMOPHIL-
             US
S2      10184   S1 AND (LUNG OR TRACEHAL OR INTRATRACHEAL OR AERSOL)
S3       8162   S2 NOT PY>2005
S4       2469   S3 AND (VACCIN? OR IMMUNIZ? OR ADMINISTR?)
S5       1310   RD S4  (unique items)
S6      36848   (VACCIN? OR IMMUNIZ? OR ADMINISR?) (5N) (LUNG OR
TRACEHAL -
             OR INTRATRACHEAL OR AERSOL OR MUCOSAL)
S7        888   S1 AND S6
S8        327   RD S7  (unique items)
S9        274   S8 NOT PY>2005
S10       259   S8 NOT PY>2004
?

---Logging off of Dialog---


? logoff
       30jun09 11:25:25 User226352 Session D1153.3
            $8.36    1.351 DialUnits File5
              $48.80  20 Type(s) in Format  7
           $48.80  20 Types
    $57.16  Estimated cost File5
            $1.21    0.160 DialUnits File6
     $1.21  Estimated cost File6
            $3.57    0.554 DialUnits File24
     $3.57  Estimated cost File24
           $56.65    1.989 DialUnits File34
    $56.65  Estimated cost File34
            $0.46    0.062 DialUnits File40
     $0.46  Estimated cost File40
            $0.58    0.089 DialUnits File41
     $0.58  Estimated cost File41
            $2.54    0.490 DialUnits File45
     $2.54  Estimated cost File45
            $3.18    0.668 DialUnits File50
     $3.18  Estimated cost File50
            $1.67    0.391 DialUnits File65
     $1.67  Estimated cost File65
            $7.10    0.652 DialUnits File71
     $7.10  Estimated cost File71
           $24.98    1.804 DialUnits File72
    $24.98  Estimated cost File72
           $23.21    1.676 DialUnits File73
    $23.21  Estimated cost File73
            $2.61    0.405 DialUnits File76
     $2.61  Estimated cost File76
            $0.52    0.117 DialUnits File98
     $0.52  Estimated cost File98
```

```
            $1.29    0.199 DialUnits File103
     $1.29  Estimated cost File103
            $0.46    0.071 DialUnits File136
     $0.46  Estimated cost File136
            $0.30    0.096 DialUnits File143
     $0.30  Estimated cost File143
            $6.74    1.319 DialUnits File144
     $6.74  Estimated cost File144
            $5.46    1.552 DialUnits File154
     $5.46  Estimated cost File154
            $5.17    1.470 DialUnits File155
     $5.17  Estimated cost File155
            $2.74    0.446 DialUnits File156
     $2.74  Estimated cost File156
            $1.59    0.339 DialUnits File162
     $1.59  Estimated cost File162
            $1.49    0.108 DialUnits File172
     $1.49  Estimated cost File172
            $0.93    0.064 DialUnits File305
     $0.93  Estimated cost File305
            $0.16    0.043 DialUnits File369
     $0.16  Estimated cost File369
            $0.22    0.060 DialUnits File370
     $0.22  Estimated cost File370
            $0.32    0.110 DialUnits File393
     $0.32  Estimated cost File393
           $18.01    1.378 DialUnits File399
    $18.01  Estimated cost File399
            $3.72    0.130 DialUnits File434
     $3.72  Estimated cost File434
            OneSearch, 29 files, 17.793 DialUnits FileOS
     $9.86  TELNET
   $243.90  Estimated cost this search
   $243.95  Estimated total session cost  18.183 DialUnits
Logoff: level 05.25.00 D  11:25:25



Connecting via Winsock to Dialog


Logging in to Dialog

Trying 31060000009998...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ********
ENTER PASSWORD:
 ********
Welcome to DIALOG
```

```
Dialog level 05.25.00D

Last logoff:  30jun09 11:25:25
Logon file405 30jun09 12:00:10
* * *
SYSTEM:HOME
Cost is in DialUnits
Menu System II: D2 version 1.8.0 term=ASCII
                     *** DIALOG HOMEBASE(SM) Main Menu ***

 Information:
  1.  Announcements (new files, reloads, etc.)
  2.  Database, Rates, & Command Descriptions
  3.  Help in Choosing Databases for Your Topic
  4.  Customer Services (telephone assistance, training, seminars,
etc.)
  5.  Product Descriptions

 Connections:
  6.  DIALOG(R) Document Delivery
  7.  Data Star(R)

    (c) 2003 Dialog, a Thomson business.      All rights reserved.

      /H = Help            /L = Logoff          /NOMENU = Command Mode


Enter an option number to view information or to connect to an online
 service.  Enter a BEGIN command plus a file number to search a
database
(e.g., B1 for ERIC).
? b 410

       30jun09 12:00:10 User226352 Session D1154.1
            $0.00    0.273 DialUnits FileHomeBase
     $0.00  Estimated cost FileHomeBase
     $0.00  Estimated cost this search
     $0.00  Estimated total session cost   0.273 DialUnits

File 410:The Chronolog 2009
       (c) 2009 Dialog. All rts. reserv.

      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi
HILIGHT set on as ''
HILIGHT set on as ''
? b biochem
       30jun09 12:00:16 User226352 Session D1154.2
            $0.00    0.117 DialUnits File410
     $0.00  Estimated cost File410
     $0.02  TELNET
```

```
     $0.02  Estimated cost this search
     $0.02  Estimated total session cost   0.390 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R) 1926-2009/Jun W3
         (c) 2009 The Thomson Corporation
  File   6:NTIS 1964-2009/Jul W1
         (c) 2009 NTIS, Intl Cpyrght All Rights Res
  File  24:CSA Life Sciences Abstracts 1966-2009/Jul
         (c) 2009 CSA.
  File  34:SciSearch(R) Cited Ref Sci 1990-2009/Jun W3
         (c) 2009 The Thomson Corp
  File  40:Enviroline(R) 1975-2008/May
         (c) 2008 Congressional Information Service
*File  40: This file is closed and will no longer update. For
similar data, please search File 76-Environmental Sciences.
  File  41:Pollution Abstracts 1966-2009/Jul
         (c) 2009 CSA.
  File  45:EMCare 2009/Jun W3
         (c) 2009 Elsevier B.V.
  File  50:CAB Abstracts 1972-2009/Jun W4
         (c) 2009 CAB International
  File  65:Inside Conferences 1993-2009/Jun 29
         (c) 2009 BLDSC all rts. reserv.
  File  71:ELSEVIER BIOBASE 1994-2009/Jun W4
         (c) 2009 Elsevier B.V.
*File  71: The file has been reloaded. Accession numbers
have changed.
  File  72:EMBASE 1993-2009/Jun 26
         (c) 2009 Elsevier B.V.
  File  73:EMBASE 1974-2009/Jun 26
         (c) 2009 Elsevier B.V.
  File  76:Environmental Sciences 1966-2009/Jul
         (c) 2009 CSA.
  File  98:General Sci Abs 1984-2009/Jun
         (c) 2009 The HW Wilson Co.
  File 103:Energy SciTec 1974-2009/Jun B1
         (c) 2009 Contains copyrighted material
*File 103: For access restrictions see Help Restrict.
  File 136:BioEngineering Abstracts 1966-2007/Jan
         (c) 2007 CSA.
*File 136: This file is closed.
  File 143:Biol. & Agric. Index 1983-2009/May
         (c) 2009 The HW Wilson Co
  File 144:Pascal 1973-2009/Jun W4
         (c) 2009 INIST/CNRS
  File 154:MEDLINE(R) 1990-2009/Jun 26
         (c) format only 2009 Dialog
  File 155:MEDLINE(R) 1950-2009/Jun 26
         (c) format only 2009 Dialog
  File 156:ToxFile 1965-2009/Jun W3
         (c) format only 2009 Dialog
```

```
  File 162:Global Health 1983-2009/Jun W4
         (c) 2009 CAB International
  File 172:EMBASE Alert 2009/Jun 29
         (c) 2009 Elsevier B.V.
  File 305:Analytical Abstracts 1980-2009/May W3
         (c) 2009 Royal Soc Chemistry
*File 305: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling.  See HELP ALERT.
  File 369:New Scientist 1994-2009/Jun W3
         (c) 2009 Reed Business Information Ltd.
  File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
*File 370: This file is closed (no updates). Use File 47 for more
current
information.
  File 393:Beilstein Database - Abstracts 2008/Q2
         (c) 2008 Beilstein GmbH
  File 399:CA SEARCH(R) 1967-2009/UD=15101
         (c) 2009 American Chemical Society
*File 399: Use is subject to the terms of your user/customer
agreement.
IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.
  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 2006 The Thomson Corp

      Set  Items  Description
      ---  -----  -----------
? s (mucosal or lung or trachea? or intratrachea?) (5n) (vaccin? or
administ? or immuniz?)
Processing
Processed  10 of  29 files ...
Processing
Processed  20 of  29 files ...
Completed processing all files
          528028  MUCOSAL
         3348901  LUNG
          327385  TRACHEA?
          104280  INTRATRACHEA?
         1539136  VACCIN?
         9796179  ADMINIST?
          808157  IMMUNIZ?
      S1  143930  (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N)
                  (VACCIN? OR ADMINIST? OR IMMUNIZ?)
? s s1 and (haemophilus(w)influenzae or haemophilus or H(w)influenzae)
Processing
Processed  20 of  29 files ...
Completed processing all files
          143930  S1
          170017  HAEMOPHILUS
          148521  INFLUENZAE
          135799  HAEMOPHILUS(W)INFLUENZAE
          170017  HAEMOPHILUS
```

```
         8199123  H
          148521  INFLUENZAE
           35814  H(W)INFLUENZAE
      S2    1135  S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR
                  H(W)INFLUENZAE)
? rd s2

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
Processing - Examined 800 records
      S3     452  RD S2  (unique items)
? s s3 not PY>2004
Processing
Processed  10 of  29 files ...
Completed processing all files
             452  S3
        34860772  PY>2004
      S4     370  S3 NOT PY>2004
? t s4/7/1-10
>>>Format 7 is not valid in file 143

 4/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

18103823   BIOSIS NO.: 200500009071
Mucosal immunology of vaccines against pathogenic
  nasopharyngeal bacteria
AUTHOR: Zhang Q; Finn A (Reprint)
AUTHOR ADDRESS: Dept Clin Sci S BristolInst Child HlthUBHT Educ Ctr,
Univ
  Bristol, Upper Maudlin St, Bristol, Avon, BS2 8AE, UK**UK
AUTHOR E-MAIL ADDRESS: Adam.Finn@bristol.ac.uk
JOURNAL: Journal of Clinical Pathology (London)  57 (10): p1015-1021
October 2004 2004
MEDIUM: print
ISSN: 0021-9746
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The introduction of Haemophilus influenzae type b
  conjugate vaccines during the 1990s was followed by dramatic
decreases
  both in the incidence of Haemophilus influenzae type b
  related invasive disease and in nasopharyngeal carriage of the
organism.
  The extent of this effect has been influenced by the fact that
  Haemophilus influenzae type b conjugate vaccines reduce
  nasopharyngeal carriage and induce herd immunity. Based on the
success of
```

Haemophilus influenzae type b conjugate vaccines, chemical conjugation has been applied to the development of pneumococcal and meningococcal polysaccharide conjugate vaccines. Evidence has begun to accumulate that these new polysaccharide based conjugate vaccines can also reduce nasopharyngeal carriage and can induce immune responses at the local mucosal level, which may be responsible for these effects. This article reviews recent studies on mucosal immune responses induced by polysaccharide based vaccines and some protein vaccine antigens against several pathogenic nasopharyngeal bacteria, and discusses the mechanisms and functions of these immune responses that may help our understanding of mucosal immune responses to both immunisation and infection.

4/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18078331 BIOSIS NO.: 200400459560
Intranasal immunization with outer membrane protein P6 and cholera toxin induces specific sinus mucosal immunity and enhances sinus clearance of nontypeable Haemophilus influenzae
AUTHOR: Sabirov Albert; Kodama Satoru; Sabirova Nailya; Mogi Goro; Suzuki Masashi (Reprint)
AUTHOR ADDRESS: Dept Otolaryngol, Oita Med Univ, 1-1 Idaigaoka, Hasama, Oita, 8795593, Japan**Japan
AUTHOR E-MAIL ADDRESS: sabiroa@med.amc.edu; suzukim@oita-med.ac.jp
JOURNAL: Vaccine 22 (23-24): p3112-3121 August 13, 2004 2004
MEDIUM: print
ISSN: 0264-410X _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae (NTHi) is one of the leading pathogens in sinusitis. One of the outer membrane proteins of NTHi, P6, is a common antigen to all strains and is an attractive candidate for a subunit bacterial vaccine. In this study, we characterized normal sinus mucosa (SM) and investigated the potential of

intranasal immunization with P6 and cholera toxin (CT) for induction of mucosal protective immunity against NTHi in the maxillary sinuses of rats. Intranasal immunization induced P6-specific sinus mucosal and systemic immunological responses, mainly of the IgA and IgG isotype. The protective effect of intranasal immunization was demonstrated by enhancement of sinus clearance of NTHi. The present study showed that unilateral intranasal immunization has a capacity to induce protective immunity against NTHi in the bilateral maxillary sinuses, Systemic administration of the vaccine did not affect sinus clearance of NTHi. These findings suggest that a nasal vaccine might be useful for preventing sinusitis. Copyright 2004 Elsevier Ltd. All rights reserved.

4/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17967667 BIOSIS NO.: 200400338456
Intranasal immunization with a colloid-formulated bacterial extract induces an acute inflammatory response in the lungs and elicits specific immune responses
AUTHOR: Rial A; Lens D; Betancor L; Benkiel H; Silva J S; Chabalgoity J A
(Reprint)
AUTHOR ADDRESS: Fac MedDept Desarrollo BiotecnolLab Vaccine Res, Inst Higiene, Avda A Navarro 3051, Montevideo, 11200, Uruguay**Uruguay
AUTHOR E-MAIL ADDRESS: jachabal@higiene.edu.uy
JOURNAL: Infection and Immunity 72 (5): p2679-2688 May 2004 2004
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nonspecific stimulation of lung defenses by repeated oral administration of immunomodulators, such as bacterial extracts, has shown potential for the prevention of respiratory tract infections. Here, we show that intranasal (i.n.) immunization with a bacterial extract formulated as a colloid induces an acute inflammatory response in the lungs characterized by increased production of CCL and CXCL chemokines and a major influx of dendritic cells (DCs) and neutrophils, with a

higher proportion of DCs showing an activated phenotype (high CD80/CD86 expression). Cytokine levels measured in bronchoalveolar-lavage samples showed a small increase in the production of tumor necrosis factor alpha and similar levels of the other cytokines measured (interleukin 10 (IL-10), IL-12, and gamma interferon (IFN-gamma)) in immunized mice compared with control mice. However, the recall response of primed animals after antigenic challenge induced increased expression of IL-12 and IFN-gamma mRNAs in lung homogenates. Overall, all these effects were not due to the lipopolysaccharide content in the bacterial extract. Furthermore, we found that three i.n. doses administered 2 to 3 weeks apart were enough to elicit long-lasting specific serum immunoglobulin G (IgG) and secretory IgA antibody responses. Assessment of IgG subclasses showed a balanced pattern of IgG1-IgG2a responses. The serum total IgE concentrations were also elevated in immunized mice 2 weeks after the third dose, but they significantly decreased soon afterwards. Our results suggest that simple formulations of bacterial extracts administered i.n. are highly immunogenic, eliciting local and systemic immune responses, and may serve as the basis for cost-effective immunotherapies for the prevention and treatment of respiratory infections.

4/7/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17559395 BIOSIS NO.: 200300514758
[Vaccins on mucosal surfaces.]
ORIGINAL LANGUAGE TITLE: Vaccins muqueux.
AUTHOR: Bout D; Mevelec M-N; Velge-Roussel F; Dimier-Poisson I; Lebrun M
JOURNAL: Archives de Pediatrie 10 (6): p565-570 Juin 2003 2003
MEDIUM: print
ISSN: 0929-693X
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: French

4/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17508368 BIOSIS NO.: 200300463979
Mucosal vaccination against encapsulated respiratory bacteria:
New potentials for conjugate vaccines?
AUTHOR: Jakobsen H; Jonsdottir I (Reprint)
AUTHOR ADDRESS: Department of Immunology, Landspitali-University Hospital,
Hringbraut, 101, Reykjavik, Iceland**Iceland
AUTHOR E-MAIL ADDRESS: ingileif@landspitali.is
JOURNAL: Scandinavian Journal of Immunology 58 (2): p119-128 August 2003
2003
MEDIUM: print
ISSN: 0300-9475 _(ISSN print)
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Polysaccharide (PS)-encapsulated bacteria such as Haemophilus influenzae type b (Hib), Streptococcus pneumoniae (pneumococcus), Neisseria meningitides (meningococcus) and group B streptococcus (GBS), cause a major proportion of disease in early childhood. Native PS vaccines are immunogenic and provide protection against disease in healthy adults but do not induce immunological memory.

PSs are T-cell-independent antigens and do not elicit antibodies in infants and young children, but by conjugating PS to proteins they become T-cell dependent and immunogenic at an early age. Despite excellent efficacy of PS-protein conjugate vaccines against invasive disease, protection against mucosal infections such as pneumococcal otitis media has been less efficacious. Circulating PS-specific antibodies may protect against infections at mucosal sites, but mucosal immunoglobulin A antibodies may also contribute significantly to protection against mucosal infections. Mucosal immunization of experimental animals with conjugate vaccines against Hib, pneumococcus, meningococcus and GBS induces systemic and mucosal immune responses, which provide protection against carriage, otitis media and invasive disease in a variety of challenge models, providing new means for protection against encapsulated bacteria. In addition, mucosal immunization of neonatal mice with a pneumococcal conjugate and the nontoxic adjuvant LT-K63 has been superior to parenteral immunization in eliciting protective antibodies and PS-specific memory, and thus circumventing the limitations of antibody responses to PS that are responsible for enhanced susceptibility of neonates and infants to

infections caused by encapsulated bacteria. Through T-cell dependent enhanced immunogenicity of PS-protein conjugate vaccines, mucosal immunization could be an attractive approach for early life immunization against encapsulated bacteria.

4/7/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17507483 BIOSIS NO.: 200300463094
Efficacy of the 26-kilodalton outer membrane protein and two P5 fimbrin-derived immunogens to induce clearance of nontypeable Haemophilus influenzae from the rat middle ear and lungs as well as from the chinchilla middle ear and nasopharynx.
AUTHOR: Kyd Jennelle M (Reprint); Cripps Allan W; Novotny Laura A; Bakaletz Lauren O
AUTHOR ADDRESS: Division of Health, Design and Science, University of Canberra, Canberra, ACT, 2601, Australia**Australia
AUTHOR E-MAIL ADDRESS: jennelle.kyd@canberra.edu.au; bakaletl@pediatrics.ohio-state.edu
JOURNAL: Infection and Immunity 71 (8): p4691-4699 August 2003 2003
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The rat middle ear and lung clearance model has been used to show that the nontypeable Haemophilus influenzae 26-kDa outer membrane protein OMP26 is highly efficacious as a mucosal immunogen, inducing significantly enhanced clearance in immunized rats upon direct challenge of these two anatomic sites. Similarly, the chinchilla model of middle ear and nasopharyngeal clearance has been used to show that two P5 fimbrin adhesin-derived immunogens, LB1 and lipoprotein D (LPD)-LB1(f)2,1,3, are highly efficacious as parenteral immunogens. Both induced significantly augmented clearance of nontypeable H. influenzae upon challenge of these sites. Here, these three nontypeable H. influenzae immunogens in addition to six bovine serum albumin and keyhole limpet hemocyanin conjugates of the synthetic peptide LB1(f) were assayed for relative efficacy in the reciprocal rodent model system. OMP26 was assayed in the chinchilla host by a parenteral immunization route, with clearance of the middle ear and nasopharynx used as outcome measures. Both LB1 and LPD-LB1(f)2,1,3 were

assayed in the rat host with a mucosal immunization route and clearance of nontypeable H. influenzae from the lungs and middle ears as outcome measures. Both of the immunogens were found to induce a high-titered and specific immune responses in the heterologous host system. Moreover, each was found to be highly efficacious in the reciprocal host system, providing strong support for the continued development and inclusion of both OMP26 and P5 fimbrin-derived peptides as candidate vaccine antigens directed at otitis media caused by nontypeable H. influenzae.

4/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17221634 BIOSIS NO.: 200300180353
Intranasal immunization with a lipooligosaccharide-based conjugate vaccine from nontypeable Haemophilus influenzae enhances bacterial clearance in mouse nasopharynx.
AUTHOR: Hirano Takashi; Hou Yingchun; Jiao Xinan; Gu Xin-Xing (Reprint)
AUTHOR ADDRESS: National Institute on Deafness and Other Communication Disorders, National Institutes of Health, 5 Research Court, Rockville, MD, 20850, USA**USA
AUTHOR E-MAIL ADDRESS: guxx@nidcd.nih.gov
JOURNAL: FEMS Immunology and Medical Microbiology 35 (1): p1-10 21 January, 2003 2003
MEDIUM: print
ISSN: 0928-8244 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae (NTHi) is a major cause of otitis media in children. We investigated whether intranasal immunization with a detoxified lipooligosaccharide-tetanus toxoid (dLOS-TT) conjugate vaccine would generate protective immunity against NTHi in a mouse model of nasopharyngeal clearance. The results demonstrated that intranasal immunization with dLOS-TT plus adjuvant cholera toxin (CT) significantly induced LOS-specific IgA antibodies in mouse external secretions, especially in nasal wash (90-fold), bronchoalveolar lavage fluid (25-fold), saliva (13-fold) and fecal extract (three-fold). LOS-specific IgA antibody-forming cells were also

found in mucosal and lymphoid tissues with their highest numbers in the nasal passage (528 per 106 cells). In addition, the intranasal immunization elicited a significant rise in LOS-specific IgG (32-fold) and IgA (13-fold) in serum. For the immunized mice which had been challenged through the nose with 107 live NTHi strain 9274 cells, the vaccine group showed a significant reduction (74-77%) of NTHi, compared to that of control groups with CT alone or dLOS plus CT ($P<0.05$). Negative correlations were found between bacterial counts and the levels of nasal wash IgA or IgG, saliva IgA and serum IgG. The clearance of five heterologous strains was investigated and revealed a significant clearance of strains 3198, 5657 and 7502 but not of strains 1479 and 2019. These data suggest that intranasal immunization with dLOS-TT vaccine elicits both mucosal and systemic immunity against NTHi and enhances bacterial clearance from nasopharynx in mice. Such a vaccine and vaccination regime may be applicable to humans with an appropriate formulation.

4/7/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17048751 BIOSIS NO.: 200300007470
Oral DNA vaccination in utero induces mucosal immunity and immune memory in the neonate.
AUTHOR: Gerdts Volker; Snider Marlene; Brownlie Robert; Babiuk Lorne A; Griebel Philip J (Reprint)
AUTHOR ADDRESS: Veterinary Infectious Disease Organization, University of Saskatchewan, 120-Veterinary Road, Saskatoon, SK, S7N 5E3, Canada**Canada
AUTHOR E-MAIL ADDRESS: griebelp@sask.usask.ca
JOURNAL: Journal of Immunology 168 (4): p1877-1885 February 15, 2002 2002
MEDIUM: print
ISSN: 0022-1767 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Infectious diseases are responsible for a significant number of deaths during the first weeks of life. Some of the salient pathogens include HSV, HIV, hepatitis B virus, group B streptococcus,

Haemophilus sp., and Chlamydia sp. The vertical transmission of many of these pathogens significantly increases the risk of neonatal infection. We recently reported that oral DNA immunization in utero induced high serum Ab titers and cell-mediated immunity in fetal lambs.

In this study, we demonstrate immune memory and mucosal immunity in newborn lambs following oral DNA immunization of the fetus. A single oral exposure in utero to plasmid DNA encoding a truncated form of glycoprotein D of bovine herpesvirus-1 induced detectable immune responses in 80% (12 of 15) of newborn lambs. There was no evidence for the induction of immune tolerance in nonresponding lambs. Responding lambs displayed both systemic and mucosal immune responses and reduced virus shedding following intranasal challenge. Furthermore, strong anamnestic responses were evident for at least 3 mo after birth. The efficacy of in utero oral DNA immunization was further demonstrated with the hepatitis B surface Ag, and protective serum Ab titers occurred in 75% of immunized lambs. Thus, the present investigation confirms that oral DNA immunization in utero can induce both mucosal and systemic immune responses in the neonate and that this immunity has the potential to prevent vertical disease transmission.

4/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17039595 BIOSIS NO.: 200200633106
Combinations of protein polysaccharide conjugate vaccines for intranasal immunization
AUTHOR: Ugozzoli Mildred; Mariani Massimo; Del Giudice Giuseppe; Soenawan Elawati; O'Hagan Derek T (Reprint)
AUTHOR ADDRESS: Chiron Corporation, 4560 Horton Street, Mailstop 4.3, Emeryville, CA, 94608, USA, USA**USA
JOURNAL: Journal of Infectious Diseases 186 (9): p1358-1361 1 November 2002 2002 2002
MEDIUM: print
ISSN: 0022-1899
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The ability of 2 mutants of heat-labile Escherichia coli

enterotoxin (LTK63 and LTR72) to enhance the immunogenicity of 2 protein polysaccharide conjugate vaccines, Neisseria meningitidis group C (MenC) and Haemophilus influenzae type B (Hib), both of which are conjugated to the nontoxic mutant of diphtheria toxin (CRM197), after intranasal (inl) immunization in mice was evaluated. In addition, the question of whether combining both vaccines in a single formulation with heat-labile E. coli enterotoxin mutants reduced the response to either vaccine was investigated. The results showed that potent serum antibody responses against MenC and Hib could be elicited by inl immunization in combination with the mucosal adjuvants. Moreover, IgA mucosal responses were induced only in animals immunized through the inl route. Finally, the coadministration of 2 conjugate vaccines simultaneously did not adversely affect the responses against either. These studies support the rationale for developing mucosal vaccines, based on combining protein polysaccharide conjugates with heat-labile E. coli enterotoxin mutants, for infants and young children.

4/7/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17006414 BIOSIS NO.: 200200599925
Immunization with Haemophilus influenzae Hap adhesin protects against nasopharyngeal colonization in experimental mice
AUTHOR: Cutter David; Mason Kathryn W; Howell Alan P; Fink Doran L; Green Bruce A; St Geme Joseph W III (Reprint)
AUTHOR ADDRESS: Dept. of Pediatrics, Washington University School of Medicine, 660 S. Euclid Ave., Campus Box 8208, Saint Louis, MO, 63110, USA**USA
JOURNAL: Journal of Infectious Diseases 186 (8): p1115-1121 15 October, 2002 2002
MEDIUM: print
ISSN: 0022-1899
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae is a common cause

of respiratory tract disease and initiates infection by colonizing the nasopharynx. The H. influenzae Hap adhesin is an auto-transporter protein that was discovered because it promotes intimate interaction with human epithelial cells. Hap contains an extracellular domain called Haps that has adhesive and protease activity and an outer membrane domain called Hapbeta that serves to present Haps on the surface of the cell. Haps purified from nontypeable H. influenzae strain P860295 was used to immunize BALB/c mice intranasally. Immunization stimulated significant mucosal and serum anti-Haps antibody titers, which were augmented by the addition of mutant cholera toxin (CT-E29H) as an adjuvant. Immunization was associated with a marked reduction in the density of nasopharyngeal colonization when mice were challenged with a heterologous strain of nontypeable H. influenzae. These results suggest that intranasal immunization with Hap formulated with CT-E29H may be a valuable vaccine strategy for the prevention of nontypeable H. influenzae disease.
? ds

```
Set     Items   Description
S1     143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N) (VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2       1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR H(W)INF-
             LUENZAE)
S3        452   RD S2  (unique items)
S4        370   S3 NOT PY>2004
? s (lung or trachea? or intratrachea?)
<------User Break------>
u!
? s s4 and (lung or trachea? or intratrachea?)
             370  S4
         3348901  LUNG
          327385  TRACHEA?
          104280  INTRATRACHEA?
      S5     238  S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
? t s5/7/1-10
>>>Format 7 is not valid in file 143

 5/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
```

17967667 BIOSIS NO.: 200400338456
Intranasal immunization with a colloid-formulated bacterial extract induces an acute inflammatory response in the lungs and elicits specific immune responses
AUTHOR: Rial A; Lens D; Betancor L; Benkiel H; Silva J S; Chabalgoity J A
(Reprint)
AUTHOR ADDRESS: Fac MedDept Desarrollo BiotecnolLab Vaccine Res, Inst Higiene, Avda A Navarro 3051, Montevideo, 11200, Uruguay**Uruguay
AUTHOR E-MAIL ADDRESS: jachabal@higiene.edu.uy
JOURNAL: Infection and Immunity 72 (5): p2679-2688 May 2004 2004
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nonspecific stimulation of lung defenses by repeated oral administration of immunomodulators, such as bacterial extracts, has shown potential for the prevention of respiratory tract infections. Here, we show that intranasal (i.n.) immunization with a bacterial extract formulated as a colloid induces an acute inflammatory response in the lungs characterized by increased production of CCL and CXCL chemokines and a major influx of dendritic cells (DCs) and neutrophils, with a higher proportion of DCs showing an activated phenotype (high CD80/CD86 expression). Cytokine levels measured in bronchoalveolar-lavage samples showed a small increase in the production of tumor necrosis factor alpha and similar levels of the other cytokines measured (interleukin 10 (IL-10), IL-12, and gamma interferon (IFN-gamma)) in immunized mice compared with control mice. However, the recall response of primed animals after antigenic challenge induced increased expression of IL-12 and IFN-gamma mRNAs in lung homogenates. Overall, all these effects were not due to the lipopolysaccharide content in the bacterial extract.
Furthermore, we found that three i.n. doses administered 2 to 3 weeks apart were enough to elicit long-lasting specific serum immunoglobulin G (IgG) and secretory IgA antibody responses. Assessment of IgG subclasses showed a balanced pattern of IgG1-IgG2a responses. The serum total IgE concentrations were also elevated in immunized mice 2 weeks after the

third dose, but they significantly decreased soon afterwards. Our results
suggest that simple formulations of bacterial extracts administered i.n.
are highly immunogenic, eliciting local and systemic immune responses,
and may serve as the basis for cost-effective immunotherapies for the
prevention and treatment of respiratory infections.

5/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17507483 BIOSIS NO.: 200300463094
Efficacy of the 26-kilodalton outer membrane protein and two P5
fimbrin-derived immunogens to induce clearance of nontypeable
Haemophilus influenzae from the rat middle ear and lungs as
well as from the chinchilla middle ear and nasopharynx.
AUTHOR: Kyd Jennelle M (Reprint); Cripps Allan W; Novotny Laura A; Bakaletz
Lauren O
AUTHOR ADDRESS: Division of Health, Design and Science, University of
Canberra, Canberra, ACT, 2601, Australia**Australia
AUTHOR E-MAIL ADDRESS: jennelle.kyd@canberra.edu.au;
bakaletl@pediatrics.ohio-state.edu
JOURNAL: Infection and Immunity 71 (8): p4691-4699 August 2003 2003
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The rat middle ear and lung clearance model has been used
to show that the nontypeable Haemophilus influenzae 26-kDa
outer membrane protein OMP26 is highly efficacious as a mucosal
immunogen, inducing significantly enhanced clearance in immunized rats
upon direct challenge of these two anatomic sites. Similarly, the
chinchilla model of middle ear and nasopharyngeal clearance has been used
to show that two P5 fimbrin adhesin-derived immunogens, LB1 and
lipoprotein D (LPD)-LB1(f)2,1,3, are highly efficacious as parenteral
immunogens. Both induced significantly augmented clearance of nontypeable
H. influenzae upon challenge of these sites. Here, these
three nontypeable H. influenzae immunogens in addition to six
bovine serum albumin and keyhole limpet hemocyanin conjugates of the
synthetic peptide LB1(f) were assayed for relative efficacy in the
reciprocal rodent model system. OMP26 was assayed in the chinchilla host

by a parenteral immunization route, with clearance of the middle ear and nasopharynx used as outcome measures. Both LB1 and LPD-LB1(f)2,1,3 were assayed in the rat host with a mucosal immunization route and clearance of nontypeable H. influenzae from the lungs and middle ears as outcome measures. Both of the immunogens were found to induce a high-titered and specific immune responses in the heterologous host system. Moreover, each was found to be highly efficacious in the reciprocal host system, providing strong support for the continued development and inclusion of both OMP26 and P5 fimbrin-derived peptides as candidate vaccine antigens directed at otitis media caused by nontypeable H. influenzae.

5/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16906006 BIOSIS NO.: 200200499517
ABT-773 demonstrates bactericidal effects against susceptible and resistant Streptococcus pneumoniae and Haemophilus influenzae in rat pulmonary infection
AUTHOR: Mitten M (Reprint); Meulbroek J (Reprint); Tovcimak A (Reprint); Wilkerson G (Reprint); Stavropoulos J (Reprint); Ramer N (Reprint); Nilius A (Reprint); Ma Z (Reprint); Flamm R (Reprint)
AUTHOR ADDRESS: Abbott Laboratories, Abbott Park, IL, USA**USA
JOURNAL: Abstracts of the Interscience Conference on Antimicrobial Agents and Chemotherapy 41 p54 2001 2001
MEDIUM: print
CONFERENCE/MEETING: 41st Annual Meeting of the Interscience Conference on Antimicrobial Agents and Chemotherapy Chicago, Illinois, USA September 22-25, 2001; 20010922
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background: ABT-773 is a ketolide in clinical development with potent activity against RTI pathogens. While bactericidal effects of ABT-773 have been demonstrated in vitro at concentrations 2-8XMIC for Streptococcus pneumoniae and Haemophilus influenzae, the

studies herein are to determine if this effect is achieved in the rat lung infection model with ABT-773 administered to fall within the plasma level range reported in humans (AUC24 0.6-6.8 mugcntdothr/ml). Methods: Normal and neutropenic rats were inoculated i.t. with log phase cultures of RTI pathogens, diluted in 5% gastric mucin for normal rats and saline for neutropenic rats. ABT-773 was delivered orally at 18 h post inoculation (p.i.) in S. pneumoniae trials and at 5 h p.i. then once daily for 2 days in H. influenzae trials. Lung bacteria burdens were assessed from rats (N=5) harvested at 0-42 h p.i. in S. pneumoniae trials and at 5-72 h p.i. in H. influenzae trials. Plasma levels were determined by microbiological assay at 2.5-60 mg/kg, PO. Results: The plasma AUC24s for doses producing cidal responses were determined. In S. pneumoniae trials in normal rats, the values were 0.1, 0.3, 0.1, and 1.1 mugcntdothr/ml for strains 6303 (MLS-S), 5649 (mef), 6396 (ermB), and 1348 (mefE and ermB), respectively. In neutropenic rats, the values were 6.0, 8.7, 8.7, and >11.8 mugcntdothr/ml for the same strains. For cidal activity in H. influenzae trials, the AUC24 values were 2.0 mugcntdothr/ml for all three strains tested. Conclusion: In normal rats, a single dose (plasma AUC24 <1.1 mugcntdothr/ml) of ABT-773 is cidal against susceptible and resistant S. pneumoniae. In neutropenic rats, the ABT-773 exposure for cidal activity is greater. In H. influenzae trials, an AUC24 of 2.0 mugcntdothr/ml was required for three consecutive days for cidal activity. These exposure levels fall within the plasma level range reported to be safe in humans.

5/7/4 (Item 4 from file: 5)

16629702 BIOSIS NO.: 200200223213
Intranasal immunization with a lipooligosaccharide-based conjugate vaccine from nontypeable Haemophilus influenzae enhances bacterial clearance from mouse nasopharynx
AUTHOR: Hirano T (Reprint); Hou Y (Reprint); Gu X (Reprint)
AUTHOR ADDRESS: Department of Immunology, National Institute on Deafness

and Other Communication Disorders, National Institutes of Health, Rockville, MD, USA**USA
JOURNAL: Abstracts of the General Meeting of the American Society for Microbiology 101 p342-343 2001 2001
MEDIUM: print
CONFERENCE/MEETING: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001; 20010520
SPONSOR: American Society of Microbiology
ISSN: 1060-2011
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae (NTHi) is one of the major pathogens of otitis media with effusion in children. Lipooligosaccharide (LOS) is a major surface antigen of NTHi and a potential vaccine canditate. We investigated if intranasal immunization with a detoxified LOS-tetanus toxoid (dLOS-TT) vaccine would generate protective immunity against NTHi in mice. A total of 60 BALB/c female mice, 20 per group, were immunized intranasally with dLOS-TT and cholera toxin (CT) as a adjuvant, dLOS and CT, or CT only on days 0, 7, 14, 21, and 28. On day 35, nasal washes, saliva, bronchoalveolar lavage, fecal extract, and sera were collected from 10 mice of each group for determination of LOS specific antibodies by an enzyme-linked immunosorbent assay (ELISA). Mononuclear cells were also purified from mouse nasal passage, spleen, nasal-associated lymphoid tissues, cervical lymph nodes (CLNs), lung, small intestine, and submandibular gland for detection of LOS-specific antibody-forming cells (AFCs) by an enzyme-linked immunospot (ELISPOT) assay. Meanwhile, the remaining of 10 mice from each group were intranasally inoculated with NTHi strain 9274 (4X109 cfu/ml) on day 35. Six hours after the inoculation, nasal washes were obtained, and plated on chocolate agars for bacterial counts. Results showed that dLOS-TT conjugate vaccine elicited a significant rise of secreting IgA and IgG in external secretions, and a significant rise of serum IgG and IgA against NTHi. The vaccine also generated LOS-specific IgA and IgG AFCs in the tissues studied. LOS-specific IgA AFCs were found in all tissues but intestine while LOS-specific IgG AFCs

were only detected in CLNs and nasal passage. In addition the vaccine significantly enhanced bacterial clearance from mouse nasopharynx by 74% when compared with the controls ($p<0.05$). These data indicated that intranasal immunization with dLOS-TT conjugate vaccine is an effective vaccination regimen to induce specific mucosal and systemic immunity against NTHi and enhances NTHi clearance in the mouse nasopharynx. Therefore, it may be a useful strategy for prevention of otitis media with effusion caused by NTHi.

5/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16168964 BIOSIS NO.: 200100340803
A cross-protection experiment in pigs vaccinated with Haemophilus parasuis serovars 2 and 5 bacterins, and evaluation of a bivalent vaccine under laboratory and field conditions
AUTHOR: Takahashi Kinya; Nagai Shinya (Reprint); Yagihashi Takeshi; Ikehata Tsutomu; Nakano Yoshinori; Senna Kazuhiro; Maruyama Takashi; Murofushi Junichi
AUTHOR ADDRESS: Third division, Nippon Institute for Biological Science, 9-2221-1 Shinmachi, Ome, Tokyo, 198-0024, Japan**Japan
JOURNAL: Journal of Veterinary Medical Science 63 (5): p487-491 May, 2001
2001
MEDIUM: print
ISSN: 0916-7250
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Cross-protection between Haemophilus parasuis serovars 2 and 5 was examined in pigs using a bacterin based vaccine, and subsequently the safety and efficacy of a bivalent vaccine were evaluated. Upon intratracheal challenge of a serovar 2 or 5 strain, pigs immunized with a monovalent vaccine were protected against challenge with a homologous serovar strain, but not with a heterologous serovar strain. Immunization with a bivalent vaccine containing both serovars 2 and 5 bacterins conferred protection in pigs against lethal challenge

with each of the serovar strains. A total of 86 pigs from two SPF herds were injected with the bivalent vaccine intramuscularly twice at a four-week interval. No adverse reactions following the vaccination were observed. On day 7 after the second vaccination, vaccinated and non-vaccinated control pigs from herd A were transferred to herd B, where Glasser's disease had broken out. Pigs in the control group developed clinical signs of the disease, and 6 of 8 (75%) pigs died until slaughter, in contrast with only 4 of 46 (9%) pigs in the vaccinated group. In herd C, where there was no outbreak of Glasser's disease, complement fixation antibody titer was raised only in the vaccinated group. A challenge experiment on days 20 and 79 after the second vaccination showed that only the vaccinated pigs were protected. From these findings, the safety and efficacy of the bivalent vaccine were confirmed under laboratory and field conditions.

5/7/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16038922 BIOSIS NO.: 200100210761
CD8+ T cells have an essential role in pulmonary clearance of nontypeable Haemophilus influenzae following mucosal immunization
AUTHOR: Foxwell A Ruth (Reprint); Kyd Jennelle M; Karupiah Guna; Cripps Allan W
AUTHOR ADDRESS: Division of Science and Design, University of Canberra, Canberra, ACT, 2601, Australia**Australia
JOURNAL: Infection and Immunity 69 (4): p2636-2642 April, 2001 2001
MEDIUM: print
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A rodent respiratory experimental model has proved useful for investigating the immune mechanisms responsible for clearance of bacteria from the lungs. Immunohistochemical studies in immune and nonimmune rats have identified the cellular kinetics of response to bacterial pulmonary infection for CD8+, CD4+, and gammadelta+ T cells; B cells; and the

expression of major histocompatibility complex class II (MHC-II). During the course of bacterial clearance, there was no apparent proliferation or extravasation of lymphocytes, nor was there increased expression of MHC-II in nonimmune animals despite an influx of polymorphonuclear leukocytes, whereas in immunized animals there was an early influx of CD8+ and gammadelta+ T cells, followed by enhanced expression of the MHC-II marker, cellular infiltration by polymorphonuclear leukocytes, and finally an increased number of CD4+ T cells. Depletion of CD8+ T cells confirmed their vital contribution in the preprimed immune response to pulmonary infection by significantly decreasing the animals' ability to clear bacteria following challenge.

5/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16007542 BIOSIS NO.: 200100179381
Viral co-infection does not reduce the efficacy of vaccination against non-typeable Haemophilus influenzae middle ear infection in a rat model
AUTHOR: Moore Ryka; Lidbury Brett A; Cripps Allan W; Kyd Jennelle M (Reprint)
AUTHOR ADDRESS: Division of Science and Design, University of Canberra, Canberra, ACT, 2601, Australia**Australia
JOURNAL: ORL (Basel) 63 (2): p96-101 March-April, 2001 2001
MEDIUM: print
ISSN: 0301-1569
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The mucosal vaccination of rodents with killed non-typeable Haemophilus influenzae (NTHi) has been previously shown to enhance live NTHi clearance following middle ear challenge. This study assessed the efficacy of mucosal anti-NTHi vaccination during a concomitant viral infection of the respiratory tract. Animals were mucosally immunised with killed NTHi by intra-Peyer's patch primary inoculation and lung (intratracheal) boost. At the time of both immunisations rats were also infected intra-nasally with Sendai virus. Concomitant Sendai virus infection did not influence the

efficacy of anti-NTHi vaccination mediated clearance of NTHi from the middle ear. This would suggest that immunisation strategies to prevent bacterial middle ear infection would be effective despite the presence of concomitant viral agents.

5/7/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

15431239 BIOSIS NO.: 200000149552
Serum and lung levels of thiamphenicol after administration of its glycinate N-acetylcysteinate ester in experimentally infected guinea pigs
AUTHOR: Drago Lorenzo (Reprint); De Vecchi Elena; Fassina Maria Cristina; Mombelli Barbara; Gismondo Maria Rita
AUTHOR ADDRESS: Laboratory of Clinical Microbiology, Department of Preclinical Science, L.I.T.A. Vialba, L. Sacco Teaching Hospital, University of Milan, Via G.B. Grassi, 74, 20157, Milan, Italy**Italy
JOURNAL: International Journal of Antimicrobial Agents 13 (4): p301-303
Feb., 2000 2000
MEDIUM: print
ISSN: 0924-8579
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Thiamphenicol is an analogue of chloramphenicol and is characterised by a broad spectrum of action. In this study, serum and lung levels of thiamphenicol (TAP) were studied in infected guinea pigs after the administration of thiamphenicol glycinate N-acetylcysteinate (TGA). Animals received a single dose of TGA (15 mg/kg, subcutaneously) immediately after intra-tracheal infection with Haemophilus influenzae (about 107 CFU/animal). Serum and lung concentrations of TAP were determined at 0, 1, 3, 6, 12 and 24 h after drug administration by means of HPLC. TAP serum levels were elevated at 1 h and remained detectable for 24 h after drug administration. Tissue lung levels were comparable to peak serum concentrations but remained higher and decreased more slowly than serum concentrations.

5/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

15311678 BIOSIS NO.: 200000029991
Effects of intranasal immunization on protective immunity against otitis
media
AUTHOR: Kurono Yuichi (Reprint); Suzuki Masashi; Mogi Goro; Yamamoto Masafumi; Fujihashi Kohtaro; McGhee Jerry R; Kiyono Hiroshi
AUTHOR ADDRESS: Department of Otolaryngology, Faculty of Medicine, Kagoshima University, 8-35-1, Sakuragaoka, Kagoshima, 890-8520, Japan**
Japan
JOURNAL: International Journal of Pediatric Otorhinolaryngology 49 (SUPPL.
1): pS227-S229 Oct. 5, 1999 1999
MEDIUM: print
ISSN: 0165-5876
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: It has been reported that intranasal immunization can induce mucosal immune responses. However, the efficacy of intranasal immunization on otitis media caused by non-typeable Haemophilus influenzae (NTHi) is not yet elucidated. Mice were intranasally, orally, intratracheally or intraperitoneally immunized with outer membrane protein (OMP) isolated from NTHi, and antigen-specific immune responses were determined by enzyme-linked immunosorbent assay (ELISA) and enzyme-linked immuno-spot assay (ELISPOT). Cytokine production from splenic CD4+ T cells was examined by ELISA. Following the immunization, the clearance of NTHi from the nasal and nasopharyngeal cavity was examined. OMP-specific IgA antibody titers in nasal washes and the numbers of specific IgA-producing cells in nasal passages were significantly increased in intranasally immunized mice. Cytokine analysis showed that interferon-gamma (IFN-gamma) and interleukins IL-6 and IL-10 were predominantly produced from CD4+ T cells. The clearance of NTHi was significantly enhanced in the intranasal immunization group. Intranasal immunization is an effective vaccination regimen for the induction of OMP-specific mucosal immune responses.

5/7/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

15063850 BIOSIS NO.: 199900323510
Nasal immunization induces Haemophilus influenzae-specific Th1 and Th2 responses with mucosal IgA and systemic IgG antibodies for protective immunity
AUTHOR: Kurono Yuichi (Reprint); Yamamoto Masafumi; Fujihashi Kohtaro; Kodama Satoru; Suzuki Masashi; Mogi Goro; McGhee Jerry R; Kiyono Hiroshi
AUTHOR ADDRESS: Dept. of Otolaryngology, Faculty of Medicine, Kagoshima University, 8-35-1, Sakuragaoka, Kagoshima, 890-8520, Japan**Japan
JOURNAL: Journal of Infectious Diseases 180 (1): p122-132 July, 1999 1999
MEDIUM: print
ISSN: 0022-1899
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: To determine the efficacy of a mucosal vaccine against nontypeable Haemophilus influenzae (NTHi), mice were immunized nasally, orally, intratracheally, or intraperitoneally with NTHi antigen together with cholera toxin. Antigen-specific IgA antibody titers in nasal washes and the numbers of antigen-specific IgA-producing cells in nasal passages showed the greatest increases in mice immunized nasally. Cytokine analysis showed that interferon-gamma, interleukin (IL)-2, IL-5, IL-6, and IL-10 were induced by nasal immunization, suggesting that Th2- and Th1-type cells were generated. Furthermore, bacterial clearance of a homologous strain of NTHi from the nasal tract was significantly enhanced in the nasal immunization group. These findings suggest that nasal immunization is an effective vaccination regimen for the induction of antigen-specific mucosal immune responses, which reduce the colonization of NTHi in the nasal tract.
? ds

Set   Items   Description
S1   143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N) (VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2   1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR H(W)INF-
             LUENZAE)
S3   452   RD S2 (unique items)
S4   370   S3 NOT PY>2004
S5   238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)

```
? s s5 and (soluble or polyvalent)
             238  S5
         1474481  SOLUBLE
           34293  POLYVALENT
      S6       3  S5 AND (SOLUBLE OR POLYVALENT)
? t s6/7/1-3
>>>Format 7 is not valid in file 143

 6/7/1     (Item 1 from file: 34)
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

03491271   Genuine Article#: NF304   Number of References: 15
Title: EFFICACY OF AN ACTINOBACILLUS-PLEUROPNEUMONIAE BACTERIN AGAINST
    SEROTYPE-1, SEROTYPE-3, SEROTYPE-5 AND SEROTYPE-9
Author(s): TARASIUK K; PEJSAK Z; HOGG A; CARLSON MP
Corporate Source: UNIV NEBRASKA,DEPT VET SCI/LINCOLN//NE/68583; UNIV
    NEBRASKA,DEPT VET SCI/LINCOLN//NE/68583; VET RES INST/PL-24100
    PULAWY//POLAND/
Journal: CANADIAN VETERINARY JOURNAL-REVUE VETERINAIRE CANADIENNE,
1994, V
    35, N4 (APR), P233-238
ISSN: 0008-5286
Language: ENGLISH   Document Type: ARTICLE
Abstract: A trial was performed in a swine research facility to
ascertain
    the protection provided by a polyvalent Actinobacillus
    pleuropneumoniae (APP) bacterin containing serotypes 1,3,5 and 9.

        The test animals consisted of 60, eight-week-old, piglets,
which
    were randomly divided into four main groups.  The four main
groups were
    further divided into three sub-groups (I, II, III) of five pigs
each.
    Sub-group I was vaccinated intramuscularly, sub-group II was
vaccinated
    subcutaneously, and sub-group III served as the unvaccinated
control
    group.
        Each main group was challenged with a single APP serotype
(1,3,5 or
    9).

        Criteria for evaluation of the bacterin efficacy were
mortality,
    lung lesions, pleural adhesions, and isolation of APP from tonsil
    or lung.

        Significant effects of vaccination over nonvaccination were
    reduced mortality, lung lesions, pleural adhesions, and
    isolations of APP from tonsil and lung.
```

There were no significant differences between the intramuscular and
subcutaneous routes of vaccination.

It was concluded that the four-way APP bacterin used in this study
provided satisfactory protection against homologous challenge.
Evidence of protection was lower mortality and lung lesions and
increased daily weight gains in vaccinates as compared with controls.

6/7/2 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

140286153 CA: 140(18)286153h PATENT
Vaccine stabilization by coating labile immunogen onto fluidized water
soluble particles
INVENTOR(AUTHOR): Wong, Tuen-Yee; So, Anthony Wai-Chiu; Ko, Thomas Sai-Ying
LOCATION: Peop. Rep. China,
ASSIGNEE: Vital Biotech (Hong Kong) Limited
PATENT: PCT International ; WO 200426336 A1 DATE: 20040401
APPLICATION: WO 2003AU1250 (20030923) *AU 20022002951692 (20020923)
PAGES: 44 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: A61K-039/00A; A61P-031/12B; A61P-031/16B; A61P-031/04B; A61P-031/22B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE;
GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT;
LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO;
RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC;
VN; YU; ZA; ZM; ZW; AM; AZ; BY; KG; KZ; MD DESIGNATED REGIONAL: GH; GM; KE
; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK;
EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;
BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG
SECTION:
CA215002 Immunochemistry
CA205XXX Agrochemical Bioregulators
CA263XXX Pharmaceuticals

IDENTIFIERS: vaccine stabilization labile immunogen fluidized particle
poultry porcine human
DESCRIPTORS:
Hepatitis...
A; vaccine stabilization by coating labile immunogen onto fluidized
water soluble particles
Immunostimulants...
adjuvants; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Meningitis...
aseptic; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Nose,disease...
atrophic rhinitis; vaccine stabilization by coating labile immunogen
onto fluidized water soluble particles
Hepatitis...
B; vaccine stabilization by coating labile immunogen onto fluidized
water soluble particles
Hepatitis...
C; vaccine stabilization by coating labile immunogen onto fluidized
water soluble particles
Drug delivery systems...
carriers; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Vaccines...
cholera; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Infection...
dengue; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Vaccines...
diphtheria tetanus pertussis; vaccine stabilization by coating labile
immunogen onto fluidized water soluble particles
Tendon...
disease, tenosynovitis, reovirus-induced; vaccine stabilization by
coating labile immunogen onto fluidized water soluble particles
Trachea(anatomical)...
disease, tracheobronchitis, avian rhinotracheitis; vaccine
stabilization by coating labile immunogen onto fluidized water soluble
particles
Toxins...
enterotoxins, enterotoxicosis; vaccine stabilization by coating labile
immunogen onto fluidized water soluble particles
Pasteurella multocida...

water soluble particles
Infection...
Newcastle disease; vaccine stabilization by coating labile immunogen
onto fluidized water soluble particles
Salivary gland,disease...
parotid, mumps; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Drug delivery systems...
particles; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Infection...
pseudorabies; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Vaccines...
rubella; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Spraying apparatus... Drying apparatus...
spray drying apparatus; vaccine stabilization by coating labile
immunogen
onto fluidized water soluble particles
Drying...
spray; vaccine stabilization by coating labile immunogen onto
fluidized
water soluble particles
Drug delivery systems...
suspensions; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Encephalitis...
tick-borne; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Bronchi,disease...
tracheobronchitis, avian rhinotracheitis; vaccine stabilization by
coating labile immunogen onto fluidized water soluble particles
Diarrhea...
travel; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Haemophilus influenzae...
type b; vaccine stabilization by coating labile immunogen onto
fluidized water soluble particles
Vaccines...
typhoid fever; vaccine stabilization by coating labile immunogen
onto
fluidized water soluble particles
Vaccines... Particles... Virus... Eubacteria... Microorganism...
Peptides,biological studies... Proteins... Glycoproteins...
Glycolipids...
Polysaccharides,biological studies... Eukaryota... Amino
acids,biological

studies... Chelating agents... Buffers... Preservatives... Stabilizing agents... Minerals,biological studies... Salts,biological studies... Metals,biological studies... Antioxidants... Lubricants... Monosaccharides
... Disaccharides... Carbohydrates,biological studies... DNA... RNA... Gelatins,biological studies... Animal... Human... Poultry... Avian infectious bronchitis virus... Coccidiosis... Reoviridae... Avian encephalomyelitis virus... Infectious bursal disease virus... Eggdrop syndrome-1976 virus... Haemophilus paragallinarum... Mycoplasma synoviae...
Avian reovirus... Sus scrofa domestica... Actinobacillus pleuropneumoniae
... Porcine parvovirus... Escherichia coli... Mycoplasma hyopneumoniae...
Influenza... Leptospira... Bordetella... Haemophilus parasuis... Clostridium perfringens... Rotavirus... Streptococcus suis... Pneumonia...
Bordetella bronchiseptica... Human herpesvirus... Human herpesvirus 2...
Poliomyelitis... Diphtheria... Pertussis... Rubella... Typhoid fever...
Human herpesvirus 4... Human papillomavirus... Streptococcus pneumoniae...
Neisseria meningitidis... Cholera... Tuberculosis...
    vaccine stabilization by coating labile immunogen onto fluidized water
    soluble particles
Human herpesvirus 3...
    varicella from; vaccine stabilization by coating labile immunogen onto
    fluidized water soluble particles
Arthritis...
    viral; vaccine stabilization by coating labile immunogen onto fluidized
    water soluble particles
Polymers,biological studies...
    water-soluble; vaccine stabilization by coating labile immunogen onto
    fluidized water soluble particles
Fever and Hyperthermia...
    yellow; vaccine stabilization by coating labile immunogen onto
    fluidized water soluble particles
  CAS REGISTRY NUMBERS:
9004-54-0 56-40-6 biological studies, vaccine stabilization by coating
    labile immunogen onto fluidized water soluble particles
69-65-8 139-33-3 vaccine stabilization by coating labile immunogen onto
    fluidized water soluble particles

6/7/3   (Item 2 from file: 399)

134331617 CA: 134(23)331617b PATENT

Oil-in-water emulsion compositions for polyfunctional active ingredients

INVENTOR(AUTHOR): Chen, Feng-jing; Patel, Mahesh V.
LOCATION: USA
ASSIGNEE: Lipocine, Inc.

PATENT: PCT International ; WO 200128555 A1 DATE: 20010426
APPLICATION: WO 2000US28835 (20001018) *US 420159 (19991018)
PAGES: 82 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: A61K-031/355A; A61K-031/20B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;
CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR;
HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA;
MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL;
TJ; TM; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU;
TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZW
; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE;
BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG
SECTION:
CA263006 Pharmaceuticals
IDENTIFIERS: glyceride emulsion polyfunctional drug delivery
DESCRIPTORS:
Monoglycerides...
acetates; oil-in-water emulsion compns. for polyfunctional active ingredients
Ubiquinones...
acetyl; oil-in-water emulsion compns. for polyfunctional active ingredients
Lung... Lymphatic system... Mucous membrane...
administration by; oil-in-water emulsion compns. for polyfunctional
active ingredients
Drug delivery systems...
aerosols; oil-in-water emulsion compns. for polyfunctional active ingredients
Fats and Glyceridic oils,biological studies...
almond; oil-in-water emulsion compns. for polyfunctional active ingredients
Interferons...
α; oil-in-water emulsion compns. for polyfunctional active ingredients

Peptides,biological studies... Proteins,general,biological studies...
amphiphilic; oil-in-water emulsion compns. for polyfunctional active
ingredients
Fats and Glyceridic oils,biological studies...
animal; oil-in-water emulsion compns. for polyfunctional active
ingredients
Proteins,specific or class...
apoproteins; oil-in-water emulsion compns. for polyfunctional active
ingredients
Fats and Glyceridic oils,biological studies...
babassu; oil-in-water emulsion compns. for polyfunctional active
ingredients
Natural products,pharmaceutical...
belladonna; oil-in-water emulsion compns. for polyfunctional active
ingredients
Interferons...
β; oil-in-water emulsion compns. for polyfunctional active
ingredients
Fats and Glyceridic oils,biological studies...
borage seed; oil-in-water emulsion compns. for polyfunctional active
ingredients
Drug delivery systems...
buccal, drops and sprays; oil-in-water emulsion compns. for
polyfunctional active ingredients
Lipids,biological studies...
cationic; oil-in-water emulsion compns. for polyfunctional active
ingredients
Uterus...
cervix, drops and sprays for; oil-in-water emulsion compns. for
polyfunctional active ingredients
Vaccines...
cholera; oil-in-water emulsion compns. for polyfunctional active
ingredients
Gonadotropins...
chrionic; oil-in-water emulsion compns. for polyfunctional active
ingredients
Fats and Glyceridic oils,biological studies...
currant, Ribes nigrum seed; oil-in-water emulsion compns. for
polyfunctional active ingredients
Bath preparations...
douches; oil-in-water emulsion compns. for polyfunctional active
ingredients
Drug delivery systems...
elixirs; oil-in-water emulsion compns. for polyfunctional active
ingredients
Fats and Glyceridic oils,biological studies...
emu; oil-in-water emulsion compns. for polyfunctional active
ingredients

Drug delivery systems...
    emulsions; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
    enteric; oil-in-water emulsion compns. for polyfunctional active ingredients
Fatty acids,biological studies...
    essential; oil-in-water emulsion compns. for polyfunctional active ingredients
Fatty acids,biological studies...
    esters, lower alc.; oil-in-water emulsion compns. for polyfunctional
    active ingredients
Corn oil... Diglycerides... Fatty acids,biological studies... Glycerides,biological studies... Monoglycerides... Sterols...
    ethoxylated; oil-in-water emulsion compns. for polyfunctional active
    ingredients
Fats and Glyceridic oils,biological studies...
    evening primrose; oil-in-water emulsion compns. for polyfunctional active ingredients
Alcohols,biological studies... Amines,biological studies... Quaternary ammonium compounds,biological studies...
    fatty; oil-in-water emulsion compns. for polyfunctional active ingredients
Fats and Glyceridic oils,biological studies...
    fish; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
    gels; oil-in-water emulsion compns. for polyfunctional active ingredients
Fats and Glyceridic oils,biological studies...
    grape seed; oil-in-water emulsion compns. for polyfunctional active
    ingredients
Vaccines...
    Haemophilus influenzae type B; oil-in-water emulsion compns. for polyfunctional active ingredients
Mucopolysaccharides,biological studies...
    heparinoids; oil-in-water emulsion compns. for polyfunctional active
    ingredients
Vaccines...
    hepatitis A, inactivated; oil-in-water emulsion compns. for polyfunctional active ingredients
Vaccines...
    hepatitis B, inactivated; oil-in-water emulsion compns. for polyfunctional active ingredients
Castor oil... Coconut oil... Cottonseed oil... Palm oil... Soybean oil...
    hydrogenated; oil-in-water emulsion compns. for polyfunctional active

ingredients
Vaccines...
influenza; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
inhalants; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
injections, i.m.; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
injections, i.v.; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
injections; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
liniments; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
lotions; oil-in-water emulsion compns. for polyfunctional active ingredients
Vaccines...
measles; oil-in-water emulsion compns. for polyfunctional active ingredients
Osmotic pressure...
modifiers; oil-in-water emulsion compns. for polyfunctional active ingredients
Vaccines...
mumps; oil-in-water emulsion compns. for polyfunctional active ingredients
Fats and Glyceridic oils,biological studies...
mustard; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
nasal sprays; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
nasal; oil-in-water emulsion compns. for polyfunctional active ingredients
Acids,biological studies... Antibacterial agents... Bases,biological studies... Beverages... Bile acids... Bile salts... Buffers... Canola oil
... Carbohydrates,biological studies... Carotenes,biological studies...
Castor oil... Ceramides... Chelating agents... Coconut oil... Coloring materials... Corn oil... Cottonseed oil... Emulsifying agents... Encapsulation... Enkephalins... Evaporation...
Extrusion,nonbiological...
Fatty acids,biological studies... Filtration... Flavoring materials...

Freeze drying... Glycerides,biological studies... Glycolipids...
Homogenization... Interleukin 2... Interleukin 3... Linseed oil...
Lipoproteins... Lysophospholipids... Melting... Mixing...
Monoglycerides...
Odor and Odorous substances... Olive oil... Palm kernel oil... Palm
oil...
Partition... Peanut oil... Phosphatidic acids...
Phosphatidylcholines,biological studies...
Phosphatidylethanolamines,biological studies...
Phosphatidylglycerols...
Phosphatidylinositols... Phosphatidylserines...
Phospholipids,biological
studies... Polymers,biological studies... Polyoxyalkylenes,biological
studies... Preservatives... Radiation... Rape oil... Safflower oil...
Size
reduction... Solubilization... Solubilizers... Solvents...
Sonication...
Soybean oil... Sphingomyelins... Sphingosines... Spraying...
Sterilization
and Disinfection... Sunflower oil... Trace elements,biological
studies...
Tumor necrosis factors... Vaccines...
    oil-in-water emulsion compns. for polyfunctional active
ingredients
Drug delivery systems...
    ointments, creams; oil-in-water emulsion compns. for
polyfunctional
    active ingredients
Drug delivery systems...
    ophthalmic; oil-in-water emulsion compns. for polyfunctional
active
    ingredients
Drug delivery systems...
    parenterals; oil-in-water emulsion compns. for polyfunctional
active
    ingredients
Drug delivery systems...
    pastes; oil-in-water emulsion compns. for polyfunctional active
    ingredients
Antioxidants...
    pharmaceutical; oil-in-water emulsion compns. for polyfunctional
active
    ingredients
Infection...
    plague, vaccine against; oil-in-water emulsion compns. for
    polyfunctional active ingredients
Growth factors,animal...
    platelet-derived human; oil-in-water emulsion compns. for
    polyfunctional active ingredients
Vaccines...
    pneumococcal, polyvalent; oil-in-water emulsion compns. for
    polyfunctional active ingredients

Alcohols,biological studies...
polyhydric; oil-in-water emulsion compns. for polyfunctional active
ingredients
Fatty acids,biological studies...
polyunsatd., triglycerides; oil-in-water emulsion compns. for polyfunctional active ingredients
Drug delivery systems...
rectal; oil-in-water emulsion compns. for polyfunctional active ingredients
Fats and Glyceridic oils,biological studies...
sesame; oil-in-water emulsion compns. for polyfunctional active ingredients
Fats and Glyceridic oils,biological studies...
shark-liver oil; oil-in-water emulsion compns. for polyfunctional active ingredients
CAS REGISTRY NUMBERS:
9003-98-9 11096-26-7 α; oil-in-water emulsion compns. for polyfunctional active ingredients
50-28-2 50-56-6 50-70-4 51-48-9 51-55-8 56-81-5 57-13-6 57-55-6
57-83-0 57-88-5 63-91-2 64-17-5 74-89-5 107-21-1 112-80-1
115-77-5 121-44-8 9002-60-2 9007-92-5 biological studies, oil-in-water emulsion compns. for polyfunctional active ingredients
57-88-5D fatty acid esters and polyethoxylated, oil-in-water emulsion compns. for polyfunctional active ingredients
57-55-6D fatty acid esters, oil-in-water emulsion compns. for polyfunctional active ingredients
12441-09-7D faty acid esters, ethoxylated, oil-in-water emulsion compns.
for polyfunctional active ingredients
50-21-5D glycerides, oil-in-water emulsion compns. for polyfunctional active ingredients
50-14-6 50-24-8 50-34-0 51-15-0 51-43-4 51-60-5 52-01-7 52-24-4
55-98-1 57-22-7 57-64-7 57-94-3 59-05-2 60-31-1 62-31-7
65-28-1
66-76-2 67-20-9 67-45-8 67-96-9 67-97-0 68-19-9 69-65-8
70-51-9
71-27-2 76-57-3 76-90-4 76-99-3 77-19-0 83-44-3 87-33-2
89-57-6
101-26-8 104-31-4 113-15-5 114-07-8 114-80-7 122-32-7
125-84-8
126-07-8 129-06-6 131-49-7 132-22-9 140-64-7 147-94-4
154-21-2
155-97-5 298-46-4 298-57-7 298-81-7 299-42-3 300-62-9
302-79-4
303-49-1 321-64-2 359-83-1 378-44-9 404-86-4 437-38-7
443-48-1
502-65-8 511-12-6 520-85-4 537-40-6 541-15-1 595-33-5
596-51-0
616-91-1 665-66-7 737-31-5 865-21-4 911-45-5 1115-70-4
1134-47-0

1264-72-8 1319-82-0 1397-89-3 1403-66-3 1404-90-6 1405-20-5
1405-37-4 1405-87-4 1406-16-2 1406-18-4 1492-18-8 1501-84-4
1684-40-8 1695-77-8 1951-25-3 1972-08-3 2016-88-8 3056-17-5
3485-62-9 3778-73-2 3930-20-9 4291-63-8 4419-39-0 4759-48-2
5104-49-4 5534-95-2 6493-05-6 6990-06-3 7261-97-4 7414-83-7
7481-89-2 7648-98-8 7689-03-4 8068-28-8 9001-28-9 9002-01-1
9004-17-5 9005-07-6 9007-48-1 9015-68-3 9034-40-6 9039-53-6
9041-08-1 9041-93-4 9087-70-1 10238-21-8 10540-29-1
10596-23-3
11000-17-2 11061-68-0 11103-57-4 11140-04-8 12001-79-5
12584-58-6
12619-70-4 12629-01-5 13265-10-6 14465-68-0 15307-86-5
15500-66-0
15574-96-6 15663-27-1 15686-51-8 15686-71-2 15687-27-1
15826-37-6
16679-58-6 16960-16-0 17230-88-5 18323-44-9 18559-94-9
18883-66-4
19356-17-3 20537-88-6 20594-83-6 20830-75-5 21215-62-3
21256-18-8
21679-14-1 21829-25-4 22254-24-6 22916-47-8 23031-32-5
23214-92-8
23288-49-5 24356-60-3 25126-32-3 25322-68-3 25322-69-4
25523-97-1
25618-55-7 25812-30-0 26839-75-8 27164-46-1 27203-92-5
29094-61-9
29122-68-7 29767-20-2 30516-87-1 32222-06-3 33069-62-4
33419-42-0
33515-09-2 33564-30-6 34787-01-4 34911-55-2 36791-04-5
37220-82-9
37321-62-3 38304-91-5 39809-25-1 41340-25-4 41575-94-4
42057-22-7
42540-40-9 42924-53-8 43200-80-2 47931-85-1 49562-28-9
49697-38-3
50700-72-6 51110-01-1 51322-75-9 51333-22-3 51384-51-1
51481-61-9
53123-88-9 53179-11-6 53230-10-7 53910-25-1 54063-53-5
54910-89-3
54965-21-8 55079-83-9 55142-85-3 56180-94-0 57248-88-1
59277-89-3
59467-70-8 59703-84-3 59865-13-3 60142-96-3 61270-78-8
61361-72-6
61379-65-5 61489-71-2 61869-08-7 62013-04-1 62356-64-3
62893-19-0
63527-52-6 63585-09-1 63590-64-7 63612-50-0 63675-72-9
64228-81-5
64544-07-6 65271-80-9 65277-42-1 66376-36-1 66419-50-9
68099-86-5
68401-81-0 68506-86-5 69049-74-7 69655-05-6 69756-53-2
70288-86-7
70458-92-3 70458-96-7 71486-22-1 72432-03-2 72559-06-9
73384-59-5
73590-58-6 73963-72-1 74011-58-8 74103-06-3 74356-00-6
74381-53-6

```
    75706-12-6  76420-72-9  76470-66-1  76547-98-3  76824-35-6
76963-41-2
    78110-38-0  79350-37-1  79517-01-4  79617-96-2  79794-75-5
79902-63-9
    81093-37-0  81098-60-4  81103-11-9  81161-17-3  82410-32-0
82419-36-1
    82626-48-0  82952-64-5  83799-24-0  83869-56-1  83881-51-0
83905-01-5
    84057-84-1  84371-65-3  84449-90-1  84625-61-6  85721-33-1
86386-73-4
    86541-75-5  87679-37-6  88669-04-9  89778-26-7  89987-06-4
90357-06-5
    91161-71-6  93390-81-9  93413-69-5  93479-97-1  93957-54-1
94749-08-3
    95233-18-4  97240-79-4  97322-87-7  97682-44-5  98079-51-7
98319-26-7
    100986-85-4  101828-21-1  103577-45-3  103628-46-2  104227-87-4
    104987-11-3  105462-24-6  106133-20-4  106650-56-0  106819-53-8
    106861-44-3  107648-80-6  107753-78-6  110871-86-8  111025-46-8
    111406-87-2  112965-21-6  113189-02-9  113665-84-2  113852-37-2
    115103-54-3  116094-23-6  117976-89-3  118072-93-8  118292-40-3
    119914-60-2  120014-06-4  121368-58-9  121679-13-8  122320-73-4
    123948-87-8  124832-26-4  127759-89-1  127779-20-8  129497-78-5
    131918-61-1  133040-01-4  133107-64-9  134523-00-5  134678-17-4
    135062-02-1  137862-53-4  138402-11-6  139110-80-8  139264-17-8
    139481-59-7  139639-23-9  143003-46-7  143011-72-7  144034-80-0
    144494-65-5  144701-48-4  145599-86-6  145941-26-0  146961-76-4
    147059-72-1  148553-50-8  151126-32-8  153559-49-0  154361-50-9
    154598-52-4  155213-67-5  156259-68-6  157810-81-6  158747-02-5
    158966-92-8  159989-64-7  160337-95-1  162011-90-7  165101-51-9
    169148-63-4  169590-42-5  173146-27-5  191588-94-0  208666-87-9
    oil-in-water emulsion compns. for polyfunctional active
ingredients
111-87-5  properties, -water partition; oil-in-water emulsion compns.
for
    polyfunctional active ingredients
? ds

Set     Items   Description
S1     143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N)
(VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2       1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR
H(W)INF-
             LUENZAE)
S3        452   RD S2  (unique items)
S4        370   S3 NOT PY>2004
S5        238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
S6          3   S5 AND (SOLUBLE OR POLYVALENT)
? s s5 and (fraction or cellular(w)fraction or cell(w)free)
Processing
Processed  10 of  29 files ...
```

```
Processing
Processing
Processed  20 of  29 files ...
Completed processing all files
             238  S5
         1901670  FRACTION
         3588177  CELLULAR
         1901670  FRACTION
            2374  CELLULAR(W)FRACTION
        22432452  CELL
         5384821  FREE
          204655  CELL(W)FREE
      S7       4  S5 AND (FRACTION OR CELLULAR(W)FRACTION OR
CELL(W)FREE)
? rd s7

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
      S8       4  RD S7  (unique items)
? ds

Set     Items   Description
S1     143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N)
(VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2       1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR
H(W)INF-
             LUENZAE)
S3        452   RD S2  (unique items)
S4        370   S3 NOT PY>2004
S5        238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
S6          3   S5 AND (SOLUBLE OR POLYVALENT)
S7          4   S5 AND (FRACTION OR CELLULAR(W)FRACTION OR
CELL(W)FREE)
S8          4   RD S7  (unique items)
? s s8 not s6
               4  S8
               3  S6
      S9       4  S8 NOT S6
? t s9/7/all
>>>Format 7 is not valid in file 143

 9/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

10736225   BIOSIS NO.: 199191119116
IMPROVED PROTECTION OF SWINE FROM PLEUROPNEUMONIA BY VACCINATION WITH
  PROTEINASE K-TREATED OUTER MEMBRANE OF
ACTINOBACILLUS-PLEUROPNEUMONIAE
  EQUALS HAEMOPHILUS
```

AUTHOR: CHIANG Y-W (Reprint); YOUNG T F; RAPP-GABRIELSON V J; ROSS R F
AUTHOR ADDRESS: VET MED RES INST, COLL VET MED, IOWA STATE UNIV, AMES, IOWA
50011, USA**USA
JOURNAL: Veterinary Microbiology 27 (1): p49-62 1991
ISSN: 0378-1135
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The immunogenic and protective potentials of an outer membrane-enriched fraction (OM) from a serotype 5 strain of Actinobacillus (Haemophilus) pleuropneumoniae (APP) and the same OM degraded with proteinase K or periodate were evaluated in swine. Groups of pigs were vaccinated with two doses of OM, proteinase K-treated OM (P-OM), periodate-treated OM (PI-OM), or placebo vaccine and challenged intranasally with the homologous strain of APP. Results from triplicate experiments indicated that proteinase K treatment of OM resulted in an improved efficacy. This improved efficacy of P-OM vaccine over untreated OM vaccine was evidenced not only by less severe lung lesions in P-OM vaccinated pigs but also by significnat reduciton ($P < 0.05$) in the number of P-OM vaccinated pigs which developed lung lesions upon challenge with APP. Assessment of sera from vaccinated animals by immunoblotting, complement fixation test, or ELISA indicated that the immunogenicity of some but not all protein or carbohydrate components were reduced (or eliminated) by proteinase K and periodate treatments respectively.

9/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

10278462 BIOSIS NO.: 199090062941
THE PROTECTIVE EFFECT OF VACCINATION AGAINST EXPERIMENTAL PNEUMONIA IN CATTLE WITH HAEMOPHILUS-SOMNUS OUTER MEMBRANE ANTIGENS AND INTERFERENCE BY LIPOPOLYSACCHARIDE
AUTHOR: SILVA S V P S (Reprint); LITTLE P B
AUTHOR ADDRESS: DEP PATHOL, ONTARIO VET COLL, UNIV GUELPH, GUELPH, ONTARIO
N1G 2W1**CANADA
JOURNAL: Canadian Journal of Veterinary Research 54 (3): p326-330 1990
ISSN: 0830-9000

DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A semi-purified outer membrane anionic (AA) fraction was isolated from Haemophilus somnus by a modified procedure of anion exchange chromatography to yield a protein fraction free of lipopolysaccharides (LPS). The AA fraction (1 mg) was administered with or without the homologous lipopolysaccharide (10 μg/kg body weight) as vaccines to groups of cattle twice, three weeks apart. A control group which did not receive any antigen was included in the trial. Six weeks after the first vaccination, the animals were challenged intratracheally with a virulent pneumonic strain of H. somnus (70986) and observed for clinical signs of respiratory disease.

The cattle were euthanized six days later and the lungs were evaluated for the severity of lesions macroscopically as well as histopathologically. Vaccination with AA alone provided the best protection against pneumonia as indicated by significantly lower clinical scores, less extensive gross lung lesions and mild histopathological lesions with immune cell infiltration. However, when AA was combined with LPS in the vaccination, this protective effect was negated and the animals showed more detrimental histopathological lesions than the controls.

9/7/3 (Item 1 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0001039466 IP ACCESSION NO: 2527690
Improved protection of swine from pleuropneumonia by vaccination with proteinase K-treated outer membrane of Actinobacillus (Haemophilus) pleuropneumoniae .

Chiang, Yu-Wei; Young, TF; Rapp-Gabrielson, VJ; Ross, RF
Vet. Med. Res. Inst., Coll. Vet. Med., Iowa State University, Ames, IA 50011,
USA

Veterinary Microbiology, v 27, n 1, p 49-62, 1991
ADDL. SOURCE INFO: Veterinary Microbiology [VET. MICROBIOL.], volume 27, number 1, pp. 49-62, 1991
PUBLICATION DATE: 1991

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract

LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0378-1135
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts
ABSTRACT:
The immunogenic and protective potentials of an outer membrane-enriched fraction (OM) from a serotype 5 strain of Actinobacillus (Haemophilus) pleuropneumoniae (APP) and the same OM degraded with proteinase K or periodate were evaluated in swine. Groups of pigs were vaccinated with two doses of OM, proteinase K-treated OM (P-OM), periodate-treated OM (PI-OM), or placebo vaccine and challenged intranasally with the homologous strain of APP. Results from triplicate experiments indicated that proteinase K treatment of OM resulted in an improved efficacy. This improved efficacy of P-OM vaccine over untreated OM vaccine was evidenced not only by less severe lung lesions in P-OM vaccinated pigs but also by significant reduction in the number of P-OM vaccinated pigs which developed lung lesions upon challenge with APP. Assessment of sera from vaccinated animals by immunoblotting, complement fixation test, or ELISA indicated that the immunogenicity of some but not all protein or carbohydrate components were reduced (or eliminated) by proteinase K and periodate treatments respectively.

9/7/4 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0006397133 CAB Accession Number: 19912250537
The protective effect of vaccination against experimental pneumonia in cattle with Haemophilus somnus outer membrane antigens and interference by lipopolysaccharide.
Primal, S. V.; Silva, S.; Little, P. B.
Dr. P.D. Little, Department of Pathology, Ontario Veterinary College, University of Guelph, Guelph, Ontario N1G 2W1, Canada.
Canadian Journal of Veterinary Research volume 54 (3): p.326-330
Publication Year: 1990
ISSN: 0830-9000
Language: English Summary Language: French
Record Type: Abstract
Document Type: Journal article

A semi-purified outer membrane anionic antigen (AA) fraction was isolated from Haemophilus somnus by a modified procedure of anion exchange chromatography to yield a protein fraction free of

lipopolysaccharides (LPS). The AA fraction (1 mg) was administered with or without the homologous lipopolysaccharide (10 microg/kg body weight) as a vaccine to groups of cattle twice, three weeks apart. A control group which did not receive any antigen was included in the trial. Six weeks after the first vaccination, the animals were challenged by intratracheal administration of a virulent pneumonic strain of H. somnus (70986) and observed for clinical signs of respiratory disease. The cattle were killed six days later and the lungs were evaluated for the severity of lesions macroscopically and histopathologically. Vaccination with AA alone provided the best protection against pneumonia as indicated by significantly lower clinical scores, less extensive gross lung lesions and mild histopathological lesions with immune cell infiltration. However, when AA was combined with LPS in the vaccination, this protective effect was negated and the animals showed more severe histopathological lesions than the controls.
32 reference
? ds

```
Set     Items   Description
S1     143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N) (VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2       1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR H(W)INF-
             LUENZAE)
S3        452   RD S2  (unique items)
S4        370   S3 NOT PY>2004
S5        238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
S6          3   S5 AND (SOLUBLE OR POLYVALENT)
S7          4   S5 AND (FRACTION OR CELLULAR(W)FRACTION OR CELL(W)FREE)
S8          4   RD S7  (unique items)
S9          4   S8 NOT S6
? s s5 and challenge
             238  S5
         1050713  CHALLENGE
     S10      39  S5 AND CHALLENGE
? t s10/7/1-10
>>>Format 7 is not valid in file 143

 10/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
```

17967667 BIOSIS NO.: 200400338456
Intranasal immunization with a colloid-formulated bacterial extract induces an acute inflammatory response in the lungs and elicits specific immune responses
AUTHOR: Rial A; Lens D; Betancor L; Benkiel H; Silva J S; Chabalgoity J A (Reprint)
AUTHOR ADDRESS: Fac MedDept Desarrollo BiotecnolLab Vaccine Res, Inst Higiene, Avda A Navarro 3051, Montevideo, 11200, Uruguay**Uruguay
AUTHOR E-MAIL ADDRESS: jachabal@higiene.edu.uy
JOURNAL: Infection and Immunity 72 (5): p2679-2688 May 2004 2004
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nonspecific stimulation of lung defenses by repeated oral administration of immunomodulators, such as bacterial extracts, has shown potential for the prevention of respiratory tract infections. Here, we show that intranasal (i.n.) immunization with a bacterial extract formulated as a colloid induces an acute inflammatory response in the lungs characterized by increased production of CCL and CXCL chemokines and a major influx of dendritic cells (DCs) and neutrophils, with a higher proportion of DCs showing an activated phenotype (high CD80/CD86 expression). Cytokine levels measured in bronchoalveolar-lavage samples showed a small increase in the production of tumor necrosis factor alpha and similar levels of the other cytokines measured (interleukin 10 (IL-10), IL-12, and gamma interferon (IFN-gamma)) in immunized mice compared with control mice. However, the recall response of primed animals after antigenic challenge induced increased expression of IL-12 and IFN-gamma mRNAs in lung homogenates. Overall, all these effects were not due to the lipopolysaccharide content in the bacterial extract. Furthermore, we found that three i.n. doses administered 2 to 3 weeks apart were enough to elicit long-lasting specific serum immunoglobulin G (IgG) and secretory IgA antibody responses. Assessment of IgG subclasses showed a balanced pattern of IgG1-IgG2a responses. The serum total IgE concentrations were also elevated in immunized mice 2

weeks after the third dose, but they significantly decreased soon afterwards. Our results suggest that simple formulations of bacterial extracts administered i.n. are highly immunogenic, eliciting local and systemic immune responses, and may serve as the basis for cost-effective immunotherapies for the prevention and treatment of respiratory infections.

10/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17507483 BIOSIS NO.: 200300463094
Efficacy of the 26-kilodalton outer membrane protein and two P5 fimbrin-derived immunogens to induce clearance of nontypeable Haemophilus influenzae from the rat middle ear and lungs as well as from the chinchilla middle ear and nasopharynx.
AUTHOR: Kyd Jennelle M (Reprint); Cripps Allan W; Novotny Laura A; Bakaletz Lauren O
AUTHOR ADDRESS: Division of Health, Design and Science, University of Canberra, Canberra, ACT, 2601, Australia**Australia
AUTHOR E-MAIL ADDRESS: jennelle.kyd@canberra.edu.au; bakaletl@pediatrics.ohio-state.edu
JOURNAL: Infection and Immunity 71 (8): p4691-4699 August 2003 2003
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The rat middle ear and lung clearance model has been used to show that the nontypeable Haemophilus influenzae 26-kDa outer membrane protein OMP26 is highly efficacious as a mucosal immunogen, inducing significantly enhanced clearance in immunized rats upon direct challenge of these two anatomic sites. Similarly, the chinchilla model of middle ear and nasopharyngeal clearance has been used to show that two P5 fimbrin adhesin-derived immunogens, LB1 and lipoprotein D (LPD)-LB1(f)2,1,3, are highly efficacious as parenteral immunogens. Both induced significantly augmented clearance of nontypeable H. influenzae upon challenge of these sites. Here, these three nontypeable H. influenzae immunogens in addition to six bovine serum albumin and keyhole limpet hemocyanin conjugates of the synthetic peptide LB1(f) were assayed for relative efficacy in the

reciprocal rodent model system. OMP26 was assayed in the chinchilla host by a parenteral immunization route, with clearance of the middle ear and nasopharynx used as outcome measures. Both LB1 and LPD-LB1(f)2,1,3 were assayed in the rat host with a mucosal immunization route and clearance of nontypeable H. influenzae from the lungs and middle ears as outcome measures. Both of the immunogens were found to induce a high-titered and specific immune responses in the heterologous host system. Moreover, each was found to be highly efficacious in the reciprocal host system, providing strong support for the continued development and inclusion of both OMP26 and P5 fimbrin-derived peptides as candidate vaccine antigens directed at otitis media caused by nontypeable H. influenzae.

10/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16168964 BIOSIS NO.: 200100340803
A cross-protection experiment in pigs vaccinated with Haemophilus parasuis serovars 2 and 5 bacterins, and evaluation of a bivalent vaccine under laboratory and field conditions
AUTHOR: Takahashi Kinya; Nagai Shinya (Reprint); Yagihashi Takeshi; Ikehata Tsutomu; Nakano Yoshinori; Senna Kazuhiro; Maruyama Takashi; Murofushi Junichi
AUTHOR ADDRESS: Third division, Nippon Institute for Biological Science, 9-2221-1 Shinmachi, Ome, Tokyo, 198-0024, Japan**Japan
JOURNAL: Journal of Veterinary Medical Science 63 (5): p487-491 May, 2001
2001
MEDIUM: print
ISSN: 0916-7250
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Cross-protection between Haemophilus parasuis serovars 2 and 5 was examined in pigs using a bacterin based vaccine, and subsequently the safety and efficacy of a bivalent vaccine were evaluated. Upon intratracheal challenge of a serovar 2 or 5 strain, pigs immunized with a monovalent vaccine were protected against

challenge with a homologous serovar strain, but not with a heterologous serovar strain. Immunization with a bivalent vaccine containing both serovars 2 and 5 bacterins conferred protection in pigs against lethal challenge with each of the serovar strains. A total of 86 pigs from two SPF herds were injected with the bivalent vaccine intramuscularly twice at a four-week interval. No adverse reactions following the vaccination were observed. On day 7 after the second vaccination, vaccinated and non-vaccinated control pigs from herd A were transferred to herd B, where Glasser's disease had broken out. Pigs in the control group developed clinical signs of the disease, and 6 of 8 (75%) pigs died until slaughter, in contrast with only 4 of 46 (9%) pigs in the vaccinated group. In herd C, where there was no outbreak of Glasser's disease, complement fixation antibody titer was raised only in the vaccinated group. A challenge experiment on days 20 and 79 after the second vaccination showed that only the vaccinated pigs were protected. From these findings, the safety and efficacy of the bivalent vaccine were confirmed under laboratory and field conditions.

10/7/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16038922 BIOSIS NO.: 200100210761
CD8+ T cells have an essential role in pulmonary clearance of nontypeable Haemophilus influenzae following mucosal immunization
AUTHOR: Foxwell A Ruth (Reprint); Kyd Jennelle M; Karupiah Guna; Cripps Allan W
AUTHOR ADDRESS: Division of Science and Design, University of Canberra, Canberra, ACT, 2601, Australia**Australia
JOURNAL: Infection and Immunity 69 (4): p2636-2642 April, 2001 2001
MEDIUM: print
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A rodent respiratory experimental model has proved useful for

investigating the immune mechanisms responsible for clearance of bacteria from the lungs. Immunohistochemical studies in immune and nonimmune rats have identified the cellular kinetics of response to bacterial pulmonary infection for CD8+, CD4+, and gammadelta+ T cells; B cells; and the expression of major histocompatibility complex class II (MHC-II). During the course of bacterial clearance, there was no apparent proliferation or extravasation of lymphocytes, nor was there increased expression of MHC-II in nonimmune animals despite an influx of polymorphonuclear leukocytes, whereas in immunized animals there was an early influx of CD8+ and gammadelta+ T cells, followed by enhanced expression of the MHC-II marker, cellular infiltration by polymorphonuclear leukocytes, and finally an increased number of CD4+ T cells. Depletion of CD8+ T cells confirmed their vital contribution in the preprimed immune response to pulmonary infection by significantly decreasing the animals' ability to clear bacteria following challenge.

10/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16007542 BIOSIS NO.: 200100179381
Viral co-infection does not reduce the efficacy of vaccination against non-typeable Haemophilus influenzae middle ear infection in a rat model
AUTHOR: Moore Ryka; Lidbury Brett A; Cripps Allan W; Kyd Jennelle M (Reprint)
AUTHOR ADDRESS: Division of Science and Design, University of Canberra, Canberra, ACT, 2601, Australia**Australia
JOURNAL: ORL (Basel) 63 (2): p96-101 March-April, 2001 2001
MEDIUM: print
ISSN: 0301-1569
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The mucosal vaccination of rodents with killed non-typeable Haemophilus influenzae (NTHi) has been previously shown to enhance live NTHi clearance following middle ear challenge. This study assessed the efficacy of mucosal anti-NTHi vaccination during a concomitant viral infection of the

respiratory tract. Animals were mucosally immunised with killed NTHi by intra-Peyer's patch primary inoculation and lung (intratracheal) boost. At the time of both immunisations rats were also infected intra-nasally with Sendai virus. Concomitant Sendai virus infection did not influence the efficacy of anti-NTHi vaccination mediated clearance of NTHi from the middle ear. This would suggest that immunisation strategies to prevent bacterial middle ear infection would be effective despite the presence of concomitant viral agents.

10/7/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

14783988 BIOSIS NO.: 199900043648
Kinetics of inflammatory cytokines in the clearance of non-typeable Haemophilus influenzae from the lung
AUTHOR: Foxwell A Ruth; Kyd Jennelle M; Cripps Allan W (Reprint)
AUTHOR ADDRESS: Fac. Applied Sci., Univ. Canberra, Canberra, ACT 2601, Australia**Australia
JOURNAL: Immunology and Cell Biology 76 (6): p556-559 Dec., 1998 1998
MEDIUM: print
ISSN: 0818-9641
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Levels of the pro-inflammatory cytokines TNF-alpha and IFN-gamma were measured from the time of infection to the time of complete clearance of non-typeable Haemophilus influenzae (NTHi) from the lung in immune and non-immune rats. Mucosal immunization facilitated production of significant levels of TNF-alpha as early as 30 min post-pulmonary challenge with NTHi in immune animals. Following the peak at 2 h, rapid decline of TNF-alpha levels occurred from the alveolar spaces. Levels of TNF-alpha in non-immunized animals increased at a slower rate, peaked at a lower concentration and were slower to decline. The significantly larger number of macrophages seen in the immune animals at 1 h after bacterial challenge could partially account for the higher levels of TNF-alpha. Interferon-gamma was not detected in immune or non-immune rats at any time point before NTHi clearance after pulmonary challenge. Study of the kinetics of TNF-alpha release demonstrates that immunized animals control the release of pro-inflammatory cytokines more

effectively than non-immunized animals for enhanced clearance of bacterial infection from the lungs.

10/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

14654561 BIOSIS NO.: 199800448808
Characteristics of the immunological response in the clearance of non-typeable Haemophilus influenzae from the lung
AUTHOR: Foxwell A Ruth; Kyd Jennelle M; Cripps Allan W (Reprint)
AUTHOR ADDRESS: Faculty Applied Science, Univ. Canberra, Canberra, ACT 2601, Australia**Australia
JOURNAL: Immunology and Cell Biology 76 (4): p323-331 Aug., 1998 1998
MEDIUM: print
ISSN: 0818-9641
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Clearance of non-typeable Haemophilus influenzae (NTHi) from the respiratory tract was investigated, over time, in immune and non-immune rats. A triphasic pattern characterized the clearance of bacteria from the lungs. Mucosal immunization enhanced bacterial clearance from the lungs in each of the three phases compared with clearance from non-immunized animals. Total clearance of bacteria was observed from lung tissue by 12 h in immune animals and 24 h in non-immune animals. Polymorphonuclear leucocytes not only arrived earlier and initially in greater numbers, but disappeared earlier in immune animals (peaking at 8 h post-challenge), compared with non-immune animals (peaking at 12 h post-challenge). Systemically derived and locally produced NTHi-specific IgA and IgG correlated with enhanced bacterial clearance during the secondary phase. This model demonstrates that immunized animals up-regulate and resolve inflammatory responses to pulmonary infection more rapidly than the non-immunized controls.

10/7/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

14467862 BIOSIS NO.: 199800262109
Potential of a novel protein, OMP26, from nontypeable Haemophilus influenzae to enhance pulmonary clearance in a rat model

AUTHOR: Kyd Jennelle M (Reprint); Cripps Allan W
AUTHOR ADDRESS: Fac. Applied Sci., Univ. Canberra, P.O. Box 1, Belconnen
ACT 2616, Australia**Australia
JOURNAL: Infection and Immunity 66 (5): p2272-2278 May, 1998 1998
MEDIUM: print
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A major outer membrane protein band of approximately 25 to 27 kDa
is commonly observed in strains of Haemophilus influenzae.
This study has investigated the potential of a 26-kDa protein (OMP26)
from nontypeable H. influenzae (NTHI) as a vaccine candidate.
OMP26 was used to immunize rats via intestinal Peyer's patches, followed
by an intratracheal boost, Immunization was found to
significantly enhance bacterial clearance following pulmonary
challenge with both the homologous NTHI strain and a different NTHI
strain. Significant levels of anti-OMP26 were found in the serum and
bronchoalveolar lavage from immunized rats, and isotypes of
immunoglobulin G (IgG) were also measured in serum. Analysis of IgG
isotypes present in serum following OMP26-immunization suggest that
predominantly a T-helper 1-type response was induced. The OMP26 protein
was amino-terminally sequenced and found to have no homology with the P5
of H. influenzae type b P5 or the fimbrin protein of NTHI,
both can migrate upon sodium dodecyl sulfate-polyacrylamide gel
electrophoresis at similar molecular masses but OMP26 has 100% homology
with a segment of the H. influenzae Rd genome. The results of
this study suggest that OMP26 may be a suitable vaccine candidate against
NTHI infection and warrants continued investigation and characterization.

10/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13745932 BIOSIS NO.: 199799379992
Modulation of antigen-specific T and B cell responses influence bacterial
clearance of non-typeable Haemophilus influenzae from the
lung in a rat model
AUTHOR: Kyd Jennelle M (Reprint); Cripps Allan W
AUTHOR ADDRESS: Discipline Pathol., Fac. Med. Health Sci., Univ. Newcastle,

Callaghan, NSW 2308, Australia**Australia
JOURNAL: Vaccine 14 (15): p1471-1478 1996 1996
ISSN: 0264-410X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: This study investigates antigen-specific B and T cell responses following mucosal immunization with the major outer membrane protein, P2, from non-typeable Haemophilus influenzae (NTHi) and the role of these responses in bacterial clearance following pulmonary challenge. Modification of the immunization preparation by the inclusion of sodium dodecyl sulphate (SDS) with the adjuvant, incomplete Freund's, differentially affects and T the B cell responses to the P2 antigen. Rats received an intra-Peyer's patch-immunization with P2 with or without the inclusion of 1% (w/v) SDS, were boosted via an intratracheal administration of P2 alone on day 14, and challenged with live NTHi in the lungs on day 21. There were significant differences in the rate of bacterial clearance between the different P2-immunized groups and the non-immune group. The inclusion of SDS with P2 resulted in enhanced bacterial clearance. This clearance corresponded to an enhancement of P2-specific lymphocyte proliferation by CD4+ T helper cells but a decrease (reduced apprxeq 75%) in anti-P2 IgG and IgA in both serum and bronchoalveolar lavage washings. P2-specific IgM levels were not altered. IgG subclass analysis indicated that the inclusion of SDS had caused a significant reduction in IgG-2a and an increase in IgG-1. The data indicates that the magnitude of antibody levels to P2 may not be as important as T cell responses in enhancing clearance of NTHi in the lung, in vivo, and that immunization targeting enhancement of antigen-specific T cells may be important to inducing effective immunity to NTHi.

10/7/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13089289 BIOSIS NO.: 199598557122
The effect of route of inoculation on protection by killed vaccines in chickens
AUTHOR: Nakamura Toshihiro; Hoshi Sumio; Nagasawa Yoji; Ueda Susumu

AUTHOR ADDRESS: Nippon Inst. Biol. Sci., Shinmachi 2221-1, Ome, Tokyo 198,
  Japan**Japan
JOURNAL: Avian Diseases 39 (3): p507-513 1995 1995
ISSN: 0005-2086
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The effect of various routes of immunization on protection
  against challenge by virulent agents was examined in chickens.
  Chickens were immunized intratracheally, intranasally, per
  os, by crop gavage, and intramuscularly. Agents examined were killed
  Haemophilus paragallinarum, Mycoplasma gallisepticum, and
  infectious bursal disease virus. Results of immunization by
  intratracheal administration were equivalent to those
  produced by parenteral administration. All vaccines effectively induced
  production of serum antibodies against pathogens, and all immunized
  chickens were protected against infection by each pathogen.
? ds

Set   Items   Description
S1   143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N) (VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2   1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR H(W)INF-
             LUENZAE)
S3   452   RD S2 (unique items)
S4   370   S3 NOT PY>2004
S5   238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
S6   3   S5 AND (SOLUBLE OR POLYVALENT)
S7   4   S5 AND (FRACTION OR CELLULAR(W)FRACTION OR CELL(W)FREE)
S8   4   RD S7 (unique items)
S9   4   S8 NOT S6
S10   39   S5 AND CHALLENGE
? t s10/7/11-39
>>>Format 7 is not valid in file 143

 10/7/11   (Item 11 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)

12202726   BIOSIS NO.: 199497224011
Mucosal and systemic immunizations with killed Pseudomonas
  aeruginosa protect against acute respiratory infection in rats
AUTHOR: Cripps Allan W (Reprint); Dunkley Margaret L; Clancy Robert L
AUTHOR ADDRESS: Hunter Area Pathol. Serv., Locked Mail Bag 1, Newcastle
  Mail Centre, NSW 2310, Australia**Australia

JOURNAL: Infection and Immunity 62 (4): p1427-1436 1994 1994
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The aim of this study was to determine the efficacies of prior mucosal (oral, intra-Peyer's patch, or intratracheal) and systemic (subcutaneous) immunizations with killed Pseudomonas aeruginosa in clearance of an acute P. aeruginosa respiratory infection in rats. Rats were immunized with paraformaldehyde-killed P. aeruginosa at various doses, and 2 weeks later, the rats were challenged with a log-10 dose of 8.7 live bacteria. This dose was fatal for unimmunized rats, with death occurring approximately 12 h after challenge. The numbers of surviving bacteria in the airways and lung tissue were determined by analyses of bronchoalveolar lavage fluid (BAL) and lung homogenate samples, respectively. Enhanced bacterial clearance was associated with survival of intra-Peyer's patch-immunized rats. Determination of bacterial clearance in BAL 4 h after challenge demonstrated that the use of all immunization routes led to significant clearance compared with the bacterial levels in unimmunized controls (the order of effectiveness was intra-Peyer's patch gt oral-intratracheal gt intratracheal gt subcutaneous gt oral). Bacterial clearance in the lung homogenate was also significantly greater for all immunization routes than in the unimmunized controls (the order of effectiveness was intra-Peyer's patch gt subcutaneous gt oral-intratracheal gt oral = intratracheal). Prior oral immunization with killed P. aeruginosa also induced enhanced bacterial clearance of heterologous strains of P. aeruginosa, Haemophilus influenzae, and to a lesser extent, Klebsiella pneumoniae. Because of the ease of antigen delivery, oral immunization with killed P. aeruginosa may be an important route of immunization for induction of enhanced bacterial clearance of subsequent acute respiratory infection with P. aeruginosa and other gram-negative bacteria.

10796312 BIOSIS NO.: 199192042083

EFFECTS OF PROLONGED INHALATION ON N FORMYLMETHIONYLLEUCYLPHENYLALANINE IN RABBITS

AUTHOR: PETERS M J (Reprint); PANARETTO K; BRESLIN A B X; BEREND N
AUTHOR ADDRESS: NATIONAL HEART LUNG INST, DOVEHOUSE ST, LONDON SW3 6LY, UK
**UK

JOURNAL: Journal of Applied Physiology 70 (6): p2448-2454 1991
ISSN: 8750-7587
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: On the basis of its potent proinflammatory and spasmogenic effects, N-formyl-methionly-leucyl-phenylalanine (FMLP), a bacterial oligopeptide, is a putative mediator of bronchoconstriction and airway inflammation during bacterial bronchial infection. However, after an FMLP dose-response curve in rabbits, tachyphylaxis to a second challenge was seen in some rabbits and airway inflammation was absent. This study was designed to reproduce the more prolonged airway exposure to FMLP that may occur during bacterial infection. Two groups of rabbits received FMLP [5 mg/ml in 66% dimethyl sulfoxide- (DMSO) saline] or DMSO diluent alone by nebulization every 15 min for 2 h. Pulmonary resistance (RL) was measured at 1 and 2 h. Recovery from bronchoconstriction was also assessed by measuring RL every 30 min for 2 h after the final FMLP administration. Sections of trachea and large bronchi were prepared and graded by quadrant from 0 to 3 for inflammation, a total score from 0 to 12 being given for each section. There was a progressive incresse in RL in FMLP-treated rabbits, reaching 68 ± 9% above baseline after 120 min, a significantly greater change than after diluent, 8 ± 12% ($P < 0.01$). RL remained elevated above baseline for 90 min after the final FMLP dose. Inflammation scores were greater after FMLP than DMSO: 9.3 ± 0.5 vs. 4.3 ± 0.7 ($P < 0.01$) in trachea and 5.2 ± 0.4 vs. 1.7 ± 0.5 ($P < 0.01$) in lobar bronchi. We conclude that prolonged exposure of airways to FLMP produces a sustained increase in RL and airway inflammation, the cardinal features of infective exacerbations of chronic airflow limitation.

10736225 BIOSIS NO.: 199191119116
IMPROVED PROTECTION OF SWINE FROM PLEUROPNEUMONIA BY VACCINATION WITH PROTEINASE K-TREATED OUTER MEMBRANE OF ACTINOBACILLUS-PLEUROPNEUMONIAE EQUALS HAEMOPHILUS
AUTHOR: CHIANG Y-W (Reprint); YOUNG T F; RAPP-GABRIELSON V J; ROSS R F
AUTHOR ADDRESS: VET MED RES INST, COLL VET MED, IOWA STATE UNIV, AMES, IOWA 50011, USA**USA
JOURNAL: Veterinary Microbiology 27 (1): p49-62 1991
ISSN: 0378-1135
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The immunogenic and protective potentials of an outer membrane-enriched fraction (OM) from a serotype 5 strain of Actinobacillus (Haemophilus) pleuropneumoniae (APP) and the same OM degraded with proteinase K or periodate were evaluated in swine. Groups of pigs were vaccinated with two doses of OM, proteinase K-treated OM (P-OM), periodate-treated OM (PI-OM), or placebo vaccine and challenged intranasally with the homologous strain of APP. Results from triplicate experiments indicated that proteinase K treatment of OM resulted in an improved efficacy. This improved efficacy of P-OM vaccine over untreated OM vaccine was evidenced not only by less severe lung lesions in P-OM vaccinated pigs but also by significnat reduciton ($P < 0.05$) in the number of P-OM vaccinated pigs which developed lung lesions upon challenge with APP. Assessment of sera from vaccinated animals by immunoblotting, complement fixation test, or ELISA indicated that the immunogenicity of some but not all protein or carbohydrate components were reduced (or eliminated) by proteinase K and periodate treatments respectively.

10/7/14 (Item 14 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09240832 BIOSIS NO.: 198886080753
VIRULENCE PROPERTIES AND PROTECTIVE EFFICACY OF THE CAPSULAR POLYMER OF HAEMOPHILUS-PLEUROPNEUMONIAE SEROTYPE 5
AUTHOR: INZANA T J (Reprint); MA J; WORKMAN T; GOGOLEWSKI R P; ANDERSON P

AUTHOR ADDRESS: DEP VET MICROBIOLOGY-PATHOLOGY, WASHINGTON STATE UNIV, PULLMAN, WASHINGTON 99164-7040, USA**USA
JOURNAL: Infection and Immunity 56 (8): p1880-1889 1988
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The role of the capsule of Haemophilus (Actinobacillus) pleuropneumoniae serotype 5 in bacterial virulence, and the protective efficacy of antibody to serotype 5 capsule was investigated. Encapsulated H. pleuropneumoniae serotype 5 were resistant to killing by complement and antibody to capsule or somatic antigens, whereas a noncapsulated mutant was sensitive to killing by the alternative complement pathway alone. Antiserum to whole H. pleuropneumoniae serotype 5 bacteria or monospecific antiserum to capsule was capable of opsonizing bacteria of the homologous serotype for phagocytosis by swine polymorphonuclear leukocytes but was not opsonic for a heterologous serotype. An immunogloblin M monoclonal antibody to the serotype 5 capsule was not opsonic for any serotype. Mice were protected against lethal, intranasal challenge with the homologous or heterologous serotype after immunization with live encapsulated or noncapsulated bacteria, but not after immunization with killed bacteria, lipopolysaccharide, or a capsule-protein conjugate vaccine. The protection induced by immunization with live bacteria was transferred to nonimmune, syngeneic mice by serum but not by spleen cells. Nonimmune pigs passively immunized with monospecific swine serum to capsule were protected from lethal infection but not from development of hemorrhagic lung lesions, whereas pigs passively immunized with swine antiserum to live bacteria did not develop severe respiratory lesions. Thus, the capsule of H. pleuropneumoniae serotype 5 was inhibitory to the bactericidal actiivty of serum and was antiphagocytic. Antibody to the capsule was opsonic but was not fully protective.

08226849 BIOSIS NO.: 198682073236
EFFICACY OF A HAEMOPHILUS-PLEUROPNEUMONIAE BACTERIN
AUTHOR: BIGBEE H G (Reprint); CHAPEK M L
AUTHOR ADDRESS: SCHERING CORP, UNION, NJ 07083, USA**USA
JOURNAL: Agri-Practice 7 (3-4): p51, 53-55 1986
ISSN: 0745-452X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The etiology, transmissibility and control of H. pneumoniae are
discussed. Results of a study conducted with a light paraffin oil
adjuvanted H. plueropneumoniae bacterin containing Serotypes 1, 5 and 7
are presented graphically and discussed. The vaccine effectively
reduced mortality and lung damage while a positive weight gain was
maintained in vaccinated pigs in spite of severe intranasal
challenge. The advantages of the light paraffin oil/emulsifier as
an adjuvant are discussed.

10/7/16 (Item 16 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

07713402 BIOSIS NO.: 198580022297
EFFICACY OF HAEMOPHILUS-PLEUROPNEUMONIAE VACCINE IN PIGS
AUTHOR: KUME K (Reprint); NAKAI T; SAWATA A
AUTHOR ADDRESS: KITASATO INST, 5-9-1 SHIROKANE, MINATO, TOKYO 108, JPN**
JAPAN
JOURNAL: Japanese Journal of Veterinary Science 47 (2): p201-206 1985
ISSN: 0021-5295
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Protective effect of an inactivated Al(OH)3 gel-absorbed vaccine
prepared from H. pleuropneumoniae (Hpn) serotype 2 strains was
investigated. About 80% of the pigs injected i.m. with the Hpn
vaccine survived the intratracheal challenge with the
homologous strain. Localized hemorrhagic lesions were observed in the
lungs of the surviving pigs. From the lesions, a few organisms were
constantly recovered. No septicemia was observed in these pigs. In
contrast, severe hemorrhagic lesions were observed in the lungs of all
the dead pigs, and numerous organisms were recovered from the lung,
the heart blood, and the peritoneal fluid. The Hpn vaccine was effective

in prevening the death caused by Hpn septicemia, and the protective potency of the vaccine can be estimated by the surviving rate of the injected pigs. Since the level of the complement-fixation (CF) antibody titers significantly correlated to the protection rate defined by the surviving rate, the CF test might be applicable for evaluating the protective potency of the Hpn vaccine.

10/7/17 (Item 1 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0002190003 IP ACCESSION NO: 4861951
CD8 super(+) T Cells Have an Essential Role in Pulmonary Clearance of Nontypeable Haemophilus influenzae following Mucosal Immunization

Foxwell, AR; Kyd, JM; Karupiah, G; Cripps, AW
Division of Science and Design, University of Canberra, Canberra, ACT 2601,
Australia, [mailto:foxwell@scides.canberra.edu.au]

Infection and Immunity, v 69, n 4, p 2636-2642, April 2001
PUBLICATION DATE: 2001

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0019-9567
DOI: 10.1128/IAI.69.4.2636-2642.2001
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

ABSTRACT:
A rodent respiratory experimental model has proved useful for investigating the immune mechanisms responsible for clearance of bacteria from the lungs. Immunohistochemical studies in immune and nonimmune rats have identified the cellular kinetics of response to bacterial pulmonary infection for CD8 super(+), CD4 super(+), and gamma Delta super(+) T cells; B cells; and the expression of major histocompatibility complex class II (MHC-II). During the course of bacterial clearance, there was no apparent proliferation or extravasation of lymphocytes, nor was there increased expression of MHC-II in nonimmune animals despite an influx of

polymorphonuclear leukocytes, whereas in immunized animals there was an
early influx of CD8 super(+) and gamma Delta super(+) T cells, followed by
enhanced expression of the MHC-II marker, cellular infiltration by
polymorphonuclear leukocytes, and finally an increased number of CD4
super(+) T cells. Depletion of CD8 super(+) T cells confirmed their vital
contribution in the preprimed immune response to pulmonary infection by
significantly decreasing the animals' ability to clear bacteria following
challenge.

10/7/18 (Item 2 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0002131616 IP ACCESSION NO: 4764217
Enhancement of clearance of bacteria from murine lungs by immunization with
detoxified lipooligosaccharide from Moraxella catarrhalis conjugated to
proteins

Hu, W-G; Chen, J; Battey, JF; Gu, X-X*
NIDCD, NIH, 5 Research Court, 2A31, Rockville, MD 20850, USA,
[mailto:guxx@nidcd.nih.gov]

Infection and Immunity, v 68, n 9, p 4980-4985, September 2000
PUBLICATION DATE: 2000

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0019-9567
DOI: 10.1128/IAI.68.9.4980-4985.2000
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts
; Medical & Pharmaceutical Biotechnology Abstracts
ABSTRACT:
Moraxella catarrhalis strain 25238 detoxified lipooligosaccharide (dLOS)-protein conjugates induced a significant rise of bactericidal anti-LOS antibodies in animals. This study reports the effect of active or
passive immunization with the conjugates or their antiserum on pulmonary
clearance of M. catarrhalis in an aerosol challenge mouse model. Mice were injected subcutaneously with dLOS-tetanus toxoid (dLOS-TT), dLOS-high-molecular-weight proteins (dLOS-HMP) from nontypeable

Haemophilus influenzae (NTHi), or nonconjugated materials in Ribi adjuvant and then challenged with M. catarrhalis strain 25238 or O35E or NTHi strain 12. Immunization with dLOS-TT or dLOS-HMP generated a significant rise of serum anti-LOS immunoglobulin G and 68% and 35 to 41% reductions of bacteria in lungs compared with the control ($P < 0.01$) following challenge with homologous strain 25238 and heterologous strain O35E, respectively. Serum anti-LOS antibody levels correlated with its bactericidal titers against M. catarrhalis and bacterial CFU in lungs. Additionally, immunization with dLOS-HMP generated a 54% reduction of NTHi strain 12 compared with the control ($P < 0.01$). Passive immunization with a rabbit antiserum against dLOS-TT conferred a significant reduction of strain 25238 CFU in lungs in a dose- and time-dependent pattern compared with preimmune serum-treated mice. Kinetic examination of lung tissue sections demonstrated that antiserum-treated mice initiated and offset inflammatory responses more rapidly than preimmune serum-treated mice. These data indicate that LOS antibodies (whether active or passive) play a major role in the enhancement of pulmonary clearance of different test strains of M. catarrhalis in mice. In addition, dLOS-HMP is a potential candidate for a bivalent vaccine against M. catarrhalis and NTHi infections.

10/7/19 (Item 3 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0002131006 IP ACCESSION NO: 4761627
Acute bacterial infections of the lower respiratory tract in children from low-income countries

Wolf, B*; Fleer, A
Department of Pediatrics, St Lucas Andreas Hospital, PO Box 9243, 1006 AE
Amsterdam, The Netherlands, [mailto:m.j.wolf@amc.uva.nl]

Reviews in Medical Microbiology, v 11, n 3, p 127-134, July 2000
PUBLICATION DATE: 2000

DOCUMENT TYPE: Journal Article; Review
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ISSN: 0954-139X
FILE SEGMENT: Bacteriology Abstracts (Microbiology B)

ABSTRACT:
Acute bacterial infection of the lower respiratory tract is a major cause of morbidity and mortality in children and is responsible for 4 million childhood deaths each year. Most of these deaths are caused by pneumonia and occur in the youngest children in the poorest parts of the world. Severe pneumonia is also much more common in low-income countries and is associated with malnutrition, coincident diseases (e.g. human immunodeficiency virus infection), crowding, low levels of health care and high nasopharyngeal carriage of bacterial pathogens. Streptococcus pneumoniae and Haemophilus influenzae are the leading bacterial causes of pneumonia worldwide but Staphylococcus aureus and Gram-negative bacilli are not infrequently encountered as aetiological organisms in low-income countries. The major challenge is early diagnosis for timely management with appropriate antibiotic treatment, and although controlled trials have shown that standardised antibiotic treatment reduces pneumonia mortality considerably, its efficacy is limited by the emergence of penicillin and cotrimoxazole resistance. Widespread active immunization with protein-conjugate vaccines against Streptococcus pneumoniae and Haemophilus influenzae is therefore the best hope for limiting the spread of these organisms and reducing the morbidity and mortality of childhood pneumonia in low-income countries.

10/7/20 (Item 4 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0001978011 IP ACCESSION NO: 4526349
Immunization with recombinant transferrin binding protein B enhances clearance of nontypeable Haemophilus influenzae from the rat lung

Webb, DC; Cripps, AW
Leukocyte Signalling and Regulation Laboratory, John Curtin School of Medical Research, Australian National University, P.O. Box 334, Canberra City, ACT 2601, Australia, [mailto:Dianne.Webb@anu.edu.au]

Infection and Immunity, v 65, n 5, p 2138-2144, May 1999

PUBLICATION DATE: 1999

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0019-9567
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

ABSTRACT:
Nontypeable Haemophilus influenzae (NTHI) is an opportunistic pathogen, and heterogeneity in the surface-exposed immunodominant domains of NTHI proteins is thought to be associated with the failure of an infection to stimulate an immune response that is cross-protective against heterologous NTHI strains. The aim of this study was to assess the vaccine potential of a surface-exposed component of the NTHI human transferrin receptor, TbpB, and to determine if the antibody response elicited was cross-reactive with heterologous strains of NTHI. The efficacy of immunization with a recombinant form of TbpB (rTbpB) was determined by assessing the pulmonary clearance of viable bacteria 4 h after a live challenge with NTHI. There was a significant reduction in the number of viable bacteria in both the bronchoalveolar lavage fluid (34% for the 20- mu g dose and 58% for the 40- mu g dose) and lung homogenates (26% for the 20- mu g dose and 60% for the 40- mu g dose) of rats immunized with rTbpB compared to the control animals. While rTbpB-specific antibodies from immunized rats were nonspecific in the recognition of TbpB from six heterologous NTHI strains on Western blots, these antibodies differed in their ability to block transferrin binding to heterologous strains and to cross-react in bactericidal assays. If bactericidal antibodies are key indicators of the efficacy of the immune response in eliminating NTHI, this data suggests that while immunization with rTbpB stimulates protective responses against the homologous isolate, variability in the recognition of TbpB from heterologous isolates may limit the potential of rTbpB as an NTHI vaccine component.

0001039466 IP ACCESSION NO: 2527690
Improved protection of swine from pleuropneumonia by vaccination with proteinase K-treated outer membrane of Actinobacillus (Haemophilus) pleuropneumoniae .

Chiang, Yu-Wei; Young, TF; Rapp-Gabrielson, VJ; Ross, RF
Vet. Med. Res. Inst., Coll. Vet. Med., Iowa State University, Ames, IA 50011,
USA

Veterinary Microbiology, v 27, n 1, p 49-62, 1991
ADDL. SOURCE INFO: Veterinary Microbiology [VET. MICROBIOL.], volume 27, number
1, pp. 49-62, 1991
PUBLICATION DATE: 1991

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0378-1135
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts
ABSTRACT:
The immunogenic and protective potentials of an outer membrane-enriched
fraction (OM) from a serotype 5 strain of Actinobacillus (Haemophilus
) pleuropneumoniae (APP) and the same OM degraded with proteinase K or
periodate were evaluated in swine. Groups of pigs were vaccinated with two
doses of OM, proteinase K-treated OM (P-OM), periodate-treated OM (PI-OM),
or placebo vaccine and challenged intranasally with the homologous strain
of APP. Results from triplicate experiments indicated that proteinase K
treatment of OM resulted in an improved efficacy. This improved efficacy of
P-OM vaccine over untreated OM vaccine was evidenced not only by less
severe lung lesions in P-OM vaccinated pigs but also by significant reduction in the number of P-OM vaccinated pigs which developed lung lesions upon challenge with APP. Assessment of
sera from vaccinated animals by immunoblotting, complement fixation test,
or ELISA indicated that the immunogenicity of some but not all protein or
carbohydrate components were reduced (or eliminated) by proteinase K and
periodate treatments respectively.

10/7/22 (Item 6 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0000652716 IP ACCESSION NO: 1701760
Immune enhancement of pulmonary clearance of nontypable Haemophilus influenzae .

Hansen, EJ; Hart, DA; McGehee, JL; Toews, GB
Dep. Microbiol., Southwestern Grad. Sch. Biomed. Sci., Dallas, TX 75235,
USA

Infection and Immunity, v 56, n 1, p 182-190, 1988
ADDL. SOURCE INFO: Infection and Immunity [INFECT. IMMUN.], volume 56, number 1,
pp. 182-190, 1988
PUBLICATION DATE: 1988

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0019-9567
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

ABSTRACT:
BALB/c mice systemically immunized by intraperitoneal injection with whole, viable cells of two different strains of nontypable Haemophilus influenzae (NTHI) exhibited a markedly enhanced ability to clear the homologous strain of NTHI from the lower respiratory
tract. Immunization did not influence the number of phagocytic cells recovered by bronchoalveolar lavage from mice before or after intrapulmonary challenge with NTHI. Immunization induced the synthesis of NTHI-directed antibodies detectable in both the bloodstream
and the alveolar spaces of the lung. The results indicate that systemic immunization can enhance the ability of experimental animals to clear NTHI from the lower respiratory tract and suggest that immunoprophylaxis of NTHI pulmonary disease may be feasible.

10/7/23 (Item 7 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0000377169 IP ACCESSION NO: 969430
Development of an experimental animal model for the protection test of Haemophilus pleuropneumoniae vaccine.

Kume, K; Nakai, T; Sawata, A
Kitasato Inst., 5-9-1, Shirokane, Minato, Tokyo 108, Japan

JAP. J. VET. SCI., v 47, n 2, p 269-273, 1985
ADDL. SOURCE INFO: JAP. J. VET. SCI., volume 47, number 2, pp. 269-273, 1985
PUBLICATION DATE: 1985

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English; Japanese
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

ABSTRACT:
  Protective effect of an inactivated vaccine prepared from Haemophilus pleuropneumoniae (Hpn) serotype 2 strains was investigated. About 80% of the guinea pigs injected intramuscularly with the Hpn vaccines survived the intraperitoneal (IP) or intratracheal (IT) challenge exposure with the homologous strains. The survived animals had at least 1:16 of the complement-fixation (CF) antibody titers. The challenge-exposed organisms were completely cleared from the various tissues and organs of the survivals, and their lungs appeared to be normal. In contrast, all the dead guinea pigs which had less than 1:16 of the CF titers showed severe extensive hemorrhagic lesions in the lungs, and numerous organisms were recovered from the lung, the heart blood, and the peritoneal fluid of each dead guinea pig. Protective potency of the Hpn vaccine could be estimated by the surviving rate of the injected guinea pigs, in addition to this, the protection rate significantly correlated to the level of the CF antibody titers. There were no differences in protection rate either among the 5 challenge strains or between the IP and IT exposure routes. Guinea pigs, instead of pigs, might possibly be applicable as a suitable experimental model for evaluating protective potency of the Hpn vaccine.

11093903   Genuine Article#: 605JQ   Number of References: 45
Title: Specific immune responses and enhancement of murine pulmonary clearance of Moraxella catarrhalis by intranasal immunization with a

detoxified lipooligosaccharide conjugate vaccine
Author(s): Jiao XN; Hirano T; Hou YC; Gu XX (REPRINT)
Corporate Source: 5 Res Court/Rockville//MD/20850 (REPRINT); Natl Inst Deafness & Other Commun Disorders,NIH,Rockville//MD/20850
Journal: INFECTION AND IMMUNITY, 2002, V70, N11 (NOV), P5982-5989
ISSN: 0019-9567 Publication date: 20021100
Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904
USA
Language: English Document Type: ARTICLE
Abstract: Moraxella catarrhalis is an important human mucosal pathogen.
This study investigated the effect of intranasal immunization with a detoxified-lipooligosaccharide-cross-reactive mutant of diphtheria toxin (dLOS-CRM) vaccine candidate on pulmonary clearance following an aerosol challenge of mice with M. catarrhalis. Intranasal immunization with dLOS-CRM plus cholera toxin induced a significantly dose-dependent increase of immunoglobulin A (IgA) and IgG in the nasal wash, lung lavage fluid, saliva, and fecal extract. In addition, serum IgG, IgM, and IgA against LOS of M. catarrhalis were detected.
LOS-specific antibody-forming cells were found in the nasal passages, spleens, nasally associated lymphoid tissues, cervical lymph nodes, lungs, and Peyer's patches using an enzyme-linked immunospot assay. The dLOS-CRM vaccine induced a significant bacterial clearance (70 to 90%) of both homologous and heterologous strains in the lungs compared to that observed in the controls ($P < 0.01$). Intriguingly, intranasal immunization with dLOS-CRM showed a higher level of bacterial clearance compared with subcutaneous injections with dLOS-CRM. These data indicate that dLOS-CRM induces specific mucosal and systemic immunity through intranasal immunization and also provides effective bacterial clearance. On the basis of these results, we believe that dLOS-CRM should undergo continued testing to determine whether it would induce protective immune response in humans.

10/7/25 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09509953 Genuine Article#: 412NJ Number of References: 23

Title: Viral co-infection does not reduce tbe efficacy of vaccination against non-typeable Haemophilus influenzae middle ear infection in a rat model
Author(s): Moore R; Lidbury BA; Cripps AW; Kyd JM (REPRINT)
Corporate Source: Univ Canberra,Div Sci & Design, Gadi Res Ctr,Canberra/ACT 2601/Australia/ (REPRINT); Univ Canberra,Div Sci & Design, Gadi Res Ctr,Canberra/ACT 2601/Australia/
Journal: ORL-JOURNAL FOR OTO-RHINO-LARYNGOLOGY AND ITS RELATED SPECIALTIES
, 2001, V63, N2 (MAR-APR), P96-101
ISSN: 0301-1569 Publication date: 20010300
Publisher: KARGER, ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND
Language: English Document Type: ARTICLE
Abstract: The mucosal vaccination of rodents with killed non-typeable Haemophilus influenzae (NTHi) has been previously shown to enhance live NTHi clearance following middle ear challenge. This study assessed the efficacy of mucosal anti-NTHi vaccination during a concomitant viral infection of the respiratory tract. Animals were mucosally immunised with killed NTHi by intra-Peyer's patch primary inoculation and lung (intratracheal) boost. At the time of both immunisations rats were also infected intra-nasally with Sendai virus. Concomitant Sendai virus infection did not influence the efficacy of anti-NTHi vaccination mediated clearance of NTHi from the middle ear. This would suggest that immunisation strategies to prevent bacterial middle ear infection would be effective despite the presence of concomitant viral agents.

10/7/26 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

08137998 Genuine Article#: 250PR Number of References: 25
Title: Investigation of mucosal immunisation in pulmonary clearance of Moraxella (Branhamella) catarrhalis
Author(s): Kyd J (REPRINT) ; John A; Cripps A; Murphy TF
Corporate Source: UNIV CANBERRA,DIV SCI & DESIGN, GADI RES CTR/CANBERRA/ACT 2601/AUSTRALIA/ (REPRINT); SUNY BUFFALO,DEPT MED, DIV INFECT DIS/BUFFALO//NY/14215; SUNY BUFFALO,DEPT MICROBIOL/BUFFALO//NY/14215
Journal: VACCINE, 1999, V18, N5-6 (OCT 14), P398-406
ISSN: 0264-410X Publication date: 19991014
Publisher: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON,

OXFORD OX5 1GB, OXON, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Moraxella (Branhamella) catarrhalis is a common cause of otitis media in children and respiratory infection in adults with chronic obstructive pulmonary disease. To identify immune responses that may facilitate the development of a mucosal vaccine, a mouse model to study pulmonary responses was established. Regimes involving intra-Peyer's patch, intratracheal and intranasal routes of immunisation with killed M. catarrhalis were investigated. A mucosal immunisation regime of a primary intra-Peyer's patch immunisation with an intratracheal boost resulted in significantly enhanced pulmonary clearance of bacteria compared to controls following an intratracheal challenge with live bacteria. Additional intratracheal boosts did not induce further enhancement of clearance. Intra-Peyer's patch immunisation alone, intratracheal and intranasal immunisations did not induce enhanced clearance. The levels of specific IgG and IgA in serum and bronchoalveolar lavage fluid correlated with pulmonary clearance. The present study showed that mucosal immunisation induced enhanced pulmonary clearance of M. catarrhalis following live bacterial challenge. This mucosal immunisation model has demonstrated that a mucosal vaccine, particularly an oral vaccine, would be feasible.

10/7/27 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

05468069 Genuine Article#: WA719 Number of References: 42
Title: MODULATION OF ANTIGEN-SPECIFIC T-CELL AND B-CELL RESPONSES INFLUENCE BACTERIAL CLEARANCE OF NONTYPABLE HAEMOPHILUS-INFLUENZAE FROM THE LUNG IN A RAT MODEL
Author(s): KYD JM; CRIPPS AW
Corporate Source: UNIV NEWCASTLE,FAC MED & HLTH SCI,DISCIPLINE PATHOL/CALLAGHAN/NSW 2308/AUSTRALIA/; UNIV CANBERRA,SCH HUMAN & BIOMED SCI/BRUCE/ACT 2616/AUSTRALIA/
Journal: VACCINE, 1996, V14, N15 (OCT), P1471-1478
ISSN: 0264-410X
Language: ENGLISH Document Type: ARTICLE
Abstract: This study investigates antigen-specific B and T cell responses

following mucosal immunization with the major outer membrane protein, P2, from non-typeable Haemophilus influenzae (NTHi) and the role of these responses in bacterium clearance following pulmonary challenge. Modification of the immunization preparation by the inclusion of sodium dodecyl sulphate (SDS) with the adjuvant, incomplete Freund's, differentially affects the T and B cell responses to the P2 antigen. Rats received an intra-Peyer's patch-immunization with P2 with or without the inclusion of 1% (w/v) SDS, were boosted via an intratracheal administration of P2 alone on day 14, and challenged with live NTHi in the lungs on day 21. There were significant differences in the rate of bacterial clearance between the different P2-immunized groups and the non-immune group. The inclusion of SDS with P2 resulted in enhanced bacterial clearance. This clearance corresponded to an enhancement of P2-specific lymphocyte proliferation by CD4(+) T helper cells but a decrease (reduced approximate to 75%) in anti-P2 IgG and IgA in both serum and bronchoalveolar lavage washings. P2-specific IgM levels were not altered. IgG subclass analysis indicated that the inclusion of SDS had caused a significant reduction in IgG(2a) and an increase in IgG(1). The data indicates that the magnitude of antibody levels to P2 may not be as important as T cell responses in enhancing clearance of NTHi in the lung, in vivo, and that immunization targeting enhancement of antigen-specific T cells may be important to inducing effective immunity to NTHi.

10/7/28 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

03491271 Genuine Article#: NF304 Number of References: 15
Title: EFFICACY OF AN ACTINOBACILLUS-PLEUROPNEUMONIAE BACTERIN AGAINST SEROTYPE-1, SEROTYPE-3, SEROTYPE-5 AND SEROTYPE-9
Author(s): TARASIUK K; PEJSAK Z; HOGG A; CARLSON MP
Corporate Source: UNIV NEBRASKA,DEPT VET SCI/LINCOLN//NE/68583; UNIV NEBRASKA,DEPT VET SCI/LINCOLN//NE/68583; VET RES INST/PL-24100 PULAWY//POLAND/
Journal: CANADIAN VETERINARY JOURNAL-REVUE VETERINAIRE CANADIENNE, 1994, V

35, N4 (APR), P233-238
ISSN: 0008-5286
Language: ENGLISH Document Type: ARTICLE
Abstract: A trial was performed in a swine research facility to ascertain the protection provided by a polyvalent Actinobacillus pleuropneumoniae (APP) bacterin containing serotypes 1,3,5 and 9.

The test animals consisted of 60, eight-week-old, piglets, which were randomly divided into four main groups. The four main groups were further divided into three sub-groups (I, II, III) of five pigs each. Sub-group I was vaccinated intramuscularly, sub-group II was vaccinated subcutaneously, and sub-group III served as the unvaccinated control group.

Each main group was challenged with a single APP serotype (1,3,5 or 9).

Criteria for evaluation of the bacterin efficacy were mortality, lung lesions, pleural adhesions, and isolation of APP from tonsil or lung.

Significant effects of vaccination over nonvaccination were reduced mortality, lung lesions, pleural adhesions, and isolations of APP from tonsil and lung.

There were no significant differences between the intramuscular and subcutaneous routes of vaccination.

It was concluded that the four-way APP bacterin used in this study provided satisfactory protection against homologous challenge. Evidence of protection was lower mortality and lung lesions and increased daily weight gains in vaccinates as compared with controls.

10/7/29 (Item 6 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

03415900 Genuine Article#: PD980 Number of References: 19
Title: COMPARISON OF SERUM RESPONSES IN SWINE AFTER VACCINATION AND CHALLENGE EXPOSURE WITH ACTINOBACILLUS-PLEUROPNEUMONIAE

SEROTYPE-1
Author(s): STINE DL; FEDORKACRAY PJ; HUETHER MJ; GENTRY MJ; ANDERSON GA
Corporate Source: SANOFI ANIM HLTH INC,RES & DEV,POB 15627/LENEXA//KS/66285
; UNIV NEBRASKA,INRA,DEPT VET BIOMED SCI/LINCOLN//NE/68583
Journal: AMERICAN JOURNAL OF VETERINARY RESEARCH, 1994, V55, N9 (SEP), P
1238-1243
ISSN: 0002-9645
Language: ENGLISH Document Type: ARTICLE
Abstract: Clinical trials have shown that currently available commercial
vaccines against porcine pleuropneumonia provide inconsistent,
serotype-specific protection from the disease. Recovery from naturally
acquired infection, however, provides solid, serotype cross-protective
immunity. We examined various serum responses of pig receiving 1 of 4
commercial vaccines or a cell extract, and compared the serologic
responses of these pigs after challenge exposure with virulent
Actinobacillus pleuropneumoniae serotype 1. Evaluation of serum
included complement-mediated killing, opsonizing capacity, IgG titers
to whole organisms, and cytotoxin neutralization titers. Pigs that
received the cell extract had fewer clinical signs of pleuropneumonia
than pigs in other vaccinated groups, and also were significantly (P <
0.05) better protected from development of lung lesions and
death. Such vaccinates were the only pigs that developed
significant (P < 0.05) serum antibody titers (ie, protective immune
response) to whole-cell antigens and to cytotoxin.

10/7/30 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0005998525 CAB Accession Number: 19882211562
Virulence properties and protective efficacy of the capsular polymer of
Haemophilus (Actinobacillus) pleuropneumoniae.
Inzana, T. J.; Ma. J.; Workman, T.; Gogolewski, R. P.; Anderson, P.
Dep. Vet. Microbiol. Path., State University, Pullman, WA 99164-7040, USA.
Infection and Immunity volume 56 (8): p.1880-1889
Publication Year: 1988
ISSN: 0019-9567
Language: English

Record Type: Abstract
Document Type: Journal article

Encapsulated H. pleuropneumoniae serotype 5 were resistant to killing by complement and antibody to capsule or somatic antigens, whereas a noncapsulated mutant was sensitive to killing by the alternative complement pathway alone. Antiserum to whole H. pleuropneumoniae serotype 5 bacteria or monospecific antiserum to capsule, opsonized bacteria of the homologous serotype for phagocytosis by swine polymorphonuclear leukocytes, but was not opsonic for the heterologous serotype. An immunoglobulin M monoclonal antibody to the serotype 5 capsule was not opsonic for any serotype. Mice were protected against lethal, intranasal challenge with the homologous or heterologous serotype after immunization with live encapsulated or noncapsulated bacteria, but not after immunization with killed bacteria, lipopolysaccharide, or a capsule-protein conjugate vaccine. The protection induced by immunization with live bacteria was transferred to non-immune, syngeneic mice by serum but not by spleen cells. Non-immune pigs passively immunized with monospecific swine serum to capsule were protected from lethal infection but not from development of haemorrhagic lung lesions, whereas pigs passively immunized with swine antiserum to live bacteria did not develop severe respiratory lesions. Thus, the capsule of H. pleuropneumoniae serotype 5 inhibited the bactericidal activity of serum and was antiphagocytic. Antibody to the capsule was opsonic but was not fully protective.
44 reference

10/7/31 (Item 2 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0004948463 CAB Accession Number: 19802256794
Vaccination of swine against Haemophilus parahaemolyticus

infection. Preliminary report.
Original Title: Vaccination mod ondartet lungesyge hos svin. Forelobig meddelelse.
Riising, H.-J.
Nordisk Droge & Kemikalie A/S, Ragnagade 9, 2100 Copenhagen OE, Denmark.
Dansk Veterinaertidsskrift volume 63 (6): p.242-243
Publication Year: 1980
ISSN: 0106-6854
Language: Danish
Record Type: Abstract
Document Type: Journal article

Three studies of vaccination of swine against H. influenzae infection are described. In one study, SPF pigs that had been infected with H. influenzae for 2 years were free from clinical respiratory signs, but all were serologically positive for H. parahaemolyticus and, at slaughter, had a high rate of pleuritis. Ten sows were vaccinated with 4 ml of attenuated live H. parahaemolyticus vaccine 6-8 weeks and 3-4 weeks before parturition, and the piglets vaccinated with 2 ml of the vaccine at 3 and 6 weeks of age. At slaughter, 32 of 131 lung samples from vaccinated piglets indicated chronic pleuritis and two samples indicated pericarditis. Of 53 unvaccinated control piglets (from unvaccinated sows), 28 piglets had pleuritis and two had pericarditis. No piglet showed clinical signs and the vaccination was considered to have reduced the rate of pleuritis. The most important factor influencing the results was the number of days from birth to slaughter: vaccinated piglets had a challenge time 5-13 days shorter than controls. The ideal form of vaccination against lung infections was considered to be a live attentuated vaccine given as a spray to produce local mucosal immunity.

10/7/32 (Item 1 from file: 72)
DIALOG(R)File 72:EMBASE

0079730868 EMBASE No: 2003440634
Interference of outer membrane protein PalA with protective immunity

against Actinobacillus pleuropneumoniae infections in vaccinated pigs

Van Den Bosch H.; Frey J.
Intervet International, P.O. Box 31, NL-5830 AA Boxmeer, Netherlands;
Walton Manor, Walton, Milton Keynes MK7 7AJ, United Kingdom
AUTHOR EMAIL: joachim.frey@vbi.unibe.ch
CORRESP. AUTHOR/AFFIL: Frey J.: Institute of Veterinary Bacteriology,
University of Bern, Laenggass-Strasse 122, CH-3012 Bern, Switzerland
CORRESP. AUTHOR EMAIL: joachim.frey@vbi.unibe.ch

Vaccine (Vaccine) (United Kingdom) August 1, 2003, 21/25-26 (3601-3607)
CODEN: VACCD ISSN: 0264-410X
DOI: 10.1016/S0264-410X(03)00410-9
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English
NUMBER OF REFERENCES: 34

The role of antibodies to the outer membrane protein PalA of Actinobacillus pleuropneumoniae in protective immunity was studied in pigs vaccinated with purified PalA alone and PalA in combination with toxoids of the RTX toxins ApxI and ApxII using an established challenge model with the virulent serotype 1 of A. pleuropneumoniae. Pigs that developed antibody titers against PalA after immunization were more significantly affected by challenge with A. pleuropneumoniae serotype 1. Following challenge, pigs that were immunized with PalA showed more severe respiratory symptoms, had a higher mortality rate and died faster. They also displayed much more severe lung lesions after necropsy than animals not immunized with PalA. Pigs that were immunized with toxoids of the two cytotoxins ApxI and ApxII were protected against challenge with A. pleuropneumoniae. In contrast, the protective efficacy of the ApxI and ApxII vaccine was completely lost when it was supplemented with PalA. Hence, antibodies induced against the outer membrane protein PalA of A. pleuropneumoniae aggravated the consequences of infection and counteracted the protective effect of anti-ApxI and anti-ApxII antibodies. Due to the high similarity between protein analogues of PalA from various bacteria of the Pasteurellaceae family such as P6 of Haemophilus influenzae or 16kDa Omp of Pasteurella multocida, this deleterious effect of PalA in

vaccination should be taken into consideration in the development of vaccines against infections with other Pasteurellaceae.

10/7/33 (Item 2 from file: 72)
DIALOG(R)File 72:EMBASE

0075766807 EMBASE No: 1994181270
Dietary linoleic acid-induced changes in respiratory beta-adrenergic receptor function and the form of arrhenius plots of isoprenaline- and prostaglandin E SUB 2-stimulated adenylate cyclase activity in a model for
atopy
Loesberg C.; Spence S.; Nijkamp F.P.; Houslay M.D.
Molecular Pharmacology Group, Department of Biochemistry, University of
Glasgow, Glasgow G12 8QQ, United Kingdom
CORRESP. AUTHOR/AFFIL: Houslay M.D.: Molecular Pharmacology Group, Department of Biochemistry, University of Glasgow, Glasgow G12 8QQ, United
Kingdom

Cellular Signalling (CELL. SIGNAL.) (United Kingdom) July 5, 1994, 6/2
(187-199)
CODEN: CESIE ISSN: 0898-6568
DOI: 10.1016/0898-6568(94)90076-0
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English

Varying dietary linoleic acid altered lung membrane fatty acid composition with linoleic acid content increasing from ~6% total in those
on 3 en% diet to ~14% total fatty acid in those on a 12 en% diet. Accompanying this were two- to three-fold increases in the levels of the
elongation products of linoleic acid, namely 20:2 (n-6) and 22:5 (n-6) and
a decrease in 18:1 oleic acid from ~26% to ~19% total. Administration of
Haemophilus influenzae, to animals on 6 en% linoleic acid, serving as a model for atopy, effected a small increase in the levels of
22:5 (n-3) and doubled those of 22:6 (n-3). beta-Adrenergic-induced tracheal relaxation and stimulation of lung adenylate cyclase
were elevated by increasing dietary linoleic acid from 3 to 6 en%, although
such differences were abolished in the atopic model and when dietary linoleic acid was increased to 12 en%. Arrhenius plots of
NaF-stimulated

lung adenylate cyclase activities exhibited a break (t SUB 1) at ~26(deg)C in all dietary groups with unchanged activation energies and activity. In contrast, whilst both isoprenaline and PGE SUB 2-stimulated adenylate cyclase activities showed similar break-points in their Arrhenius plots, dietary linoleic acid manipulation markedly altered their form. As with NaF-stimulated activities then, irrespective of dietary manipulation and induction of atopy, these plots showed an invariant break occurring at ~26(deg)C. But, for animals on 3 and 6 en% diets, a second break was apparent at ~15(deg)C, which was slightly decreased to ~12(deg)C upon induction of atopy and completely abolished on increasing dietary linoleic acid to 12 en%. Accompanying such changes were marked alterations in activation energies. We suggest that profound changes in lung plasma membrane bilayer properties occur upon both altering dietary linoleic acid levels and in atopy. These selectively perturb adenylate cyclase activity when it is receptor-stimulated but not when it is activated by direct G-protein stimulation with NaF. We suggest that atopy and dietary challenge elicit an asymmetric perturbation of the plasma membrane that predominantly affects the outer half of the lipid bilayer.

10/7/34 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

0075107199 EMBASE No: 1992258872
Differing roles for platelet-activating factor during inflammation of the lung and subarachnoid space. The special case of Streptococcus pneumoniae

Cabellos C.; MacIntyre D.E.; Forrest M.; Burroughs M.; Prasad S.; Tuomanen E.
Molecular Infectious Diseases Laboratory, Rockefeller University, 1230 York Avenue, New York, NY 10021, United States
CORRESP. AUTHOR/AFFIL: Tuomanen E.: Molecular Infectious Diseases Laboratory, Rockefeller University, 1230 York Avenue, New York, NY 10021, United States

Journal of Clinical Investigation (J. CLIN. INVEST.) (United States)
September 8, 1992, 90/2 (612-618)
CODEN: JCINA ISSN: 0021-9738
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract

LANGUAGE: English SUMMARY LANGUAGE: English

Although well-characterized in the lung, the role of platelet-activating factor (PAF) in inflammation in the central nervous system is undefined. Using rabbit models of meningitis and pneumonia, PAF was found to induce significant blood-brain barrier permeability and brain edema at doses five times lower than those required to generate leukocyte recruitment to the subarachnoid space. Both leukocytosis and increased vascular permeability occurred in response to PAF in the lung. Antibody to the CD-18 family of leukocyte adhesion molecules inhibited leukocyte recruitment in response to PAF in the brain (> 80%); a similar level of inhibition in the lung required treatment with a combination of a PAF receptor antagonist (L-659,989) and anti-CD18 antibody. Treatment with L-659,989 decreased abnormal cerebrospinal fluid cytochemical values induced by intracisternal challenge with pneumococci but not Haemophilus influenzae, indicating a special role for PAF in pneumococcal disease. Antibodies directed at phosphorylcholine, a unique, shared determinant of bioactivity of PAF and pneumococcal cell wall, obviated the inflammatory potential of both agents. However, no evidence for a direct PAF-like activity of pneumococcal cell wall components was detected in vitro by bioassay using platelets or neutrophils. It is concluded that PAF can induce inflammation in the subarachnoid space. In brain, PAF effects appear to be mediated through CD-18-dependent events, while in lung, PAF effects independent of CD-18 are also evident. At both sites, PAF is of particular clinical importance during inflammation induced by pneumococci apparently due to a unique proinflammatory relationship between the pneumococcal cell wall teichoic acid and PAF.

10/7/35 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

0073735835 EMBASE No: 1988196728
Virulence properties and protective efficacy of the capsular polymer of Haemophilus (Actinobacillus) pleuropneumoniae serotype 5
Inzana T.J.; Ma J.; Workman T.; Gogolewski R.P.; Anderson P.
Department of Veterinary Microbiology-Pathology, Washington State

University, Pullman, WA 99164-7040, United States:
CORRESP. AUTHOR/AFFIL: Department of Veterinary Microbiology-Pathology,
Washington State University, Pullman, WA 99164-7040, United States

Infection and Immunity (INFECT. IMMUN.) (United States) September 12,
1988, 56/8 (1880-1889)
CODEN: INFIB ISSN: 0019-9567
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English

The role of the capsule of Haemophilus (Actinobacillus) pleuropneumoniae serotype 5 in bacterial virulence, and the protective efficacy of antibody to serotype 5 capsule was investigated. Encapsulated H. pleuropneumoniae serotype 5 were resistant to killing by complement and antibody to capsule or somatic antigens, whereas a noncapsulated mutant was sensitive to killing by the alternative complement pathway alone. Antiserum to whole H. pleuropneumoniae serotype 5 bacteria or monospecific antiserum to capsule was capable of opsonizing bacteria of the homologous serotype for phagocytosis by swine polymorphonuclear leukocytes but was not opsonic for a heterologous serotype. An immunoglobulin M monoclonal antibody to the serotype 5 capsule was not opsonic for any serotype. Mice were protected against lethal, intranasal challenge with the homologous or heterologous serotype after immunization with live encapsulated or noncapsulated bacteria, but not after immunization with killed bacteria, lipopolysaccharide, or a capsule-protein conjugate vaccine. The protection induced by immunization with live bacteria was transferred to nonimmune, syngeneic mice by serum but not by spleen cells. Nonimmune pigs pasively immunized with monospecific swine serum to capsule were protected from lethal infection but not from development of hemorrhagic lung lesions, whereas pigs passively immunized with swine antiserum to live bacteria did not develop severe respiratory lesions. Thus, the capsule of H. pleuropneumoniae serotype 5 was inhibitory to the bactericidal activity of serum and was antiphagocytic. Antibody to the capsule was opsonic but was not fully protective.

10/7/36 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

0071683232 EMBASE No: 1980126043
The effects of haemophilus influenzae vaccination on anaphylactic mediator release and isoprenaline-induced inhibition of mediator release
Schreurs A.J.M.; Terpstra G.K.; Raaijmakers J.A.M.; Nijkamp F.P.
Rudolf Magnus Inst. Pharmacol., University Utrecht, 3521 GD Utrecht, Netherlands:
CORRESP. AUTHOR/AFFIL: Rudolf Magnus Inst. Pharmacol., University Utrecht, 3521 GD Utrecht, Netherlands

European Journal of Pharmacology (EUR. J. PHARMACOL.) (Netherlands)
June 20, 1980, 62/4 (261-268)
CODEN: EJPHA ISSN: 0014-2999
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English

The influence of Haemophilus influenzae on anaphylactic mediator release from ovalbumin-sensitized isolated guinea pig lungs was investigated. Lungs from H. influenzae-vaccinated animals released prostaglandins and thromboxanes following a smaller dose of ovalbumin than was effective in non-vaccinated animals. Histamine release was significantly increased in 4 day-vaccinated animals but not 1 or 10 days after vaccination, while broncho-constriction was potentiated in 1 and in 4 day-vaccinated animals. This increased histamine release was achieved following 2 mug ovalbumin. In contrast, doses of 10 mug and 1 mg ovalbumin respectively did not affect and decreased histamine release in the vaccinated group. The inhibition of anaphylactic mediator release by an infusion of 6 x 10 SUP -9 M isoprenaline was significantly attenuated by H. influenzae vaccination. These results indicate an increased sensitivity to antigenic challenge and suggest that the functioning of beta-adrenoceptors was decreased as a result of H. influenzae vaccination.

10/7/37 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

12648981 PASCAL Number: 96-0343191

Correlation of increased azithromycin concentrations with phagocyte infiltration into sites of localized infection

Azithromycin: further clinical experience

GIRARD A E; CIMOCHOWSKI C R; FAIELLA J A

FINCH Roger G, ed; BROWN Erwin M, ed; SPENCER Robert C, ed; DALY Philip J , ed

Central Research Division, Pfizer Inc., Easter Point Road, Groton, CT 06340, United States

Nottingham City Hospital Trust, The University of Nottingham, Nottingham, United Kingdom

Journal: Journal of antimicrobial chemotherapy, 1996, 37 (SUPC) 9-19

ISSN: 0305-7453 CODEN: JACHDX Availability: INIST-17084; 354000060313560020

Number of Refs.: 15 reference

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United Kingdom

Language: English

Azithromycin reaches high concentrations in phagocytic and other host cells, suggesting that they may transport this agent to specific sites of infection. Models of localized infection (Haemophilus influenzae middle ear infection in gerbils, Streptococcus pyogenes implanted contaminated paper disc and Streptococcus pneumoniae pneumonia in mice) that induced severe inflammatory response after challenge were used to explore this hypothesis. Animals were given a single 100 or 50mg/kg po dose of azithromycin at various times from 2 to 120 h following introduction of a pathogen or sterile medium. When azithromycin was given during a period of little or no inflammation, there was marginal difference between concentrations found in infected or non-infected sites (bulla, disc, lung). However, when the compound was given during a period of inflammation, considerably higher drug concentrations were found in infected sites than in non-infected sites at 5-24 h after dosing (0.38-0.44 mg/c compared with 0.07-0.14 mg/L of bulla wash ; 1.01-1.75 mu g compared with <=0.01-0.03 mu g at the disc site ; 1.72-5.28 mg/kg compared with 0.7-1.53 mg/kg of lung). When the observation periods were extended to include 48, 56 or 96 h after dosing, the ratio of azithromycin infection

site concentration : serum concentration steadily increased with time in all model systems (middle ear, implanted disc and pneumonia), reflecting the maintenance of concentrations at the sites of infection, while serum concentrations declined. Bioassay of cell pellets and supernatants, obtained from pooled bulla washes of gerbils treated with azithromycin during a period of inflammation, revealed that cellular components accounted for about 75% of the azithromycin detected. These data show that increased azithromycin concentrations occur at sites of localized infection. This correlates with the presence of inflammation and is associated with the cellular components of the inflammatory response. Therefore, phagocy

10/7/38 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09402523 PMID: 2624760
Effect of primary immunization on pulmonary clearance of nontypable Haemophilus influenzae.
McGehee J L; Radolf J D; Toews G B; Hansen E J
Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas 75235.
American journal of respiratory cell and molecular biology (UNITED STATES) Sep 1989, 1 (3) p201-10, ISSN 1044-1549--Print Journal Code: 8917225
Contract/Grant Number: AI-23366; AI; NIAID NIH HHS United States
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't; Research Support, U.S. Gov't, P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Nontypable Haemophilus influenzae (NTHI) is being increasingly recognized as a cause of both adult pneumonia and acute infectious exacerbations in chronic bronchitis. We used a mouse model to

study the immune enhancement of pulmonary clearance of NTHI after a primary immunization. BALB/c mice were immunized with whole NTHI either by intraperitoneal (i.p.) or intratracheal (i.t.) routes. There was 10-fold more NTHI-directed antibody detected in the serum of the i.p.-immunized mice than in the serum from the i.t.-immunized animals. Western blot analysis revealed that these antibodies were directed against both NTHI lipooligosaccharide and the various outer membrane proteins of NTHI. The development of NTHI-directed antibodies in serum was associated with significant enhancement of early pulmonary clearance of NTHI. Six hours after delivery of an endobronchial challenge with NTHI, the i.p.-immunized mice had cleared most of the organisms from their lungs, while the i.t.-immunized mice did not clear NTHI any more rapidly than did unimmunized mice. Serum from the i.p.-immunized mice caused more than 99% uptake of NTHI in an in vitro opsonophagocytic assay, while serum from i.t.-immunized mice stimulated little or no phagocytosis of this organism. Opsonophagocytosis of NTHI was obtained with bronchoalveolar lavage (BAL) fluid collected from i.p.-immunized mice 6 h after, but not before, an endobronchial challenge with NTHI. Intravenous injection of an opsonic IgG monoclonal antibody directed against NTHI lipooligosaccharide resulted in both the appearance of this antibody in the alveolar spaces of the unperturbed lung and enhanced pulmonary clearance of NTHI. These data indicate that the i.p. (systemic) route of immunization is more effective than the i.t. route in establishing pulmonary immunity to NTHI in this model system. Furthermore, immune enhancement of clearance of NTHI from the lungs after a primary immunization apparently results from the exudation of opsonic and bactericidal antibodies from the serum into the alveolae in response to the inflammatory challenge.

Record Date Created: 19900406
Record Date Completed: 19900406

```
 10/7/39     (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2009 American Chemical Society. All rts. reserv.

  123253972    CA: 123(19)253972v    JOURNAL
  Evaluation of pig lungs following an experimental challenge with
  Actinobacillus pleuropneumoniae serotype 1 and 5 in pigs inoculated
with
  either hemolysin protein and/or outer membrane proteins
  AUTHOR(S): Madsen, M. E.; Carnahan, K. G.; Thwaits, R. N.
  LOCATION: Dep. Animal Science, Brigham Young University, Provo, TX,
84602, USA
  JOURNAL: FEMS Microbiol. Lett.  DATE: 1995  VOLUME: 131  NUMBER: 3
  PAGES: 329-35  CODEN: FMLED7  ISSN: 0378-1097  LANGUAGE: English
  SECTION:
    CA215002 Immunochemistry
  IDENTIFIERS: Actinobacillus vaccine hemolysin outer membrane
protein, pig
    lung Acinobacillus vaccine
  DESCRIPTORS:
Haemophilus pleuropneumoniae... Hemolysins... Lung,disease,
infection...
Proteins,specific or class, OMP (outer membrane protein)... Swine...
Vaccines...
    lung infection response to vaccine of Actinobacillus
pleuropneumoniae
    in pigs inoculated with either hemolysin and/or outer membrane
proteins
? ds

Set     Items   Description
S1     143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N)
(VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2       1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR
H(W)INF-
             LUENZAE)
S3        452   RD S2  (unique items)
S4        370   S3 NOT PY>2004
S5        238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
S6          3   S5 AND (SOLUBLE OR POLYVALENT)
S7          4   S5 AND (FRACTION OR CELLULAR(W)FRACTION OR
CELL(W)FREE)
S8          4   RD S7  (unique items)
S9          4   S8 NOT S6
S10        39   S5 AND CHALLENGE
? s s5 and (outer(w)membrane or omv or sonicate)
             238  S5
          752858  OUTER
         5364692  MEMBRANE
          180800  OUTER(W)MEMBRANE
```

```
            2384  OMV
            4607  SONICATE
     S11      26  S5 AND (OUTER(W)MEMBRANE OR OMV OR SONICATE)
? s s11 not s10
              26  S11
              39  S10
     S12      15  S11 NOT S10
? t s12/7/all
>>>Format 7 is not valid in file 143

 12/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

15311678   BIOSIS NO.: 200000029991
Effects of intranasal immunization on protective immunity against
otitis
  media
AUTHOR: Kurono Yuichi (Reprint); Suzuki Masashi; Mogi Goro; Yamamoto
  Masafumi; Fujihashi Kohtaro; McGhee Jerry R; Kiyono Hiroshi
AUTHOR ADDRESS: Department of Otolaryngology, Faculty of Medicine,
  Kagoshima University, 8-35-1, Sakuragaoka, Kagoshima, 890-8520,
Japan**
  Japan
JOURNAL: International Journal of Pediatric Otorhinolaryngology  49
(SUPPL.
1): pS227-S229 Oct. 5, 1999 1999
MEDIUM: print
ISSN: 0165-5876
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: It has been reported that intranasal immunization can
  induce mucosal immune responses. However, the efficacy of
  intranasal immunization on otitis media caused by non-typeable
  Haemophilus influenzae (NTHi) is not yet elucidated. Mice
  were intranasally, orally, intratracheally or intraperitoneally
  immunized with outer membrane protein (OMP) isolated
  from NTHi, and antigen-specific immune responses were determined by
  enzyme-linked immunosorbent assay (ELISA) and enzyme-linked
immuno-spot
  assay (ELISPOT). Cytokine production from splenic CD4+ T cells was
  examined by ELISA. Following the immunization, the clearance of
NTHi from
  the nasal and nasopharyngeal cavity was examined. OMP-specific IgA
  antibody titers in nasal washes and the numbers of specific
IgA-producing
  cells in nasal passages were significantly increased in intranasally
  immunized mice. Cytokine analysis showed that interferon-gamma
  (IFN-gamma) and interleukins IL-6 and IL-10 were predominantly
produced
```

from CD4+ T cells. The clearance of NTHi was significantly enhanced in the intranasal immunization group. Intranasal immunization is an effective vaccination regimen for the induction of OMP-specific mucosal immune responses.

12/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12955923 BIOSIS NO.: 199598423756
Enhanced respiratory clearance of nontypeable Haemophilus Influenzae following mucosal immunization with P6 in a rat model
AUTHOR: Kyd Jennelle M (Reprint); Dunkley Margaret L; Cripps Allan W
AUTHOR ADDRESS: Sch. Human Biomedical Sci., Fac. Applied Sci., Univ. Canberra, PO Box 1, Belconnen, ACT, 2616, Australia**Australia
JOURNAL: Infection and Immunity 63 (8): p2931-2940 1995 1995
ISSN: 0019-9567
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Nontypeable Haemophilus influenzae (NTHi) is a common cause of infection of the respiratory tract in children and adults. The search for an effective vaccine against this pathogen has focused on components of the outer membrane, and peptidoglycan-associated lipoprotein P6 is among the proposed candidates.
This study investigated the immunogenicity of P6 in a rat respiratory model. P6 was purified from two strains of NTHi, one capsule-deficient strain and an H. influenzae type b strain, and assessed for clearance of both homologous and heterologous bacterial strains following mucosal immunization. A protective immune response was determined by enhancement of pulmonary clearance of live bacteria and an increased rate of recruitment of phagocytic cells to the lungs. This was most effective when Peyer's patch immunization was accompanied by an intratracheal (IT) boost. However, the rate of bacterial clearance varied between strains, which suggests some differences in anti-P6 immunological defenses recognizing the expression of the highly conserved P6 lipoprotein on the bacterial surface in some strains.
P6-specific antibodies in both serum and bronchoalveolar lavage fluid

were cross-reactive and did not differ significantly in strain specificity, demonstrating that difference in clearance was unlikely due to differences in P6-specific antibody levels. Serum homologous and heterologous P6-antibody was bactericidal against NTHi even when enhanced clearance had not been observed. Peyer's patch immunization induced P6-specific CD4+ T-helper cell proliferation in lymphocytes isolated from the mesenteric lymph nodes. An IT boost increased the level of P6-specific antibodies in serum and bronchoalveolar lavage fluid, and P6-specific mesenteric node lymphocyte proliferation. Cells from rats immunized with P6 demonstrated proliferation following stimulation with P6 from nonhomologous strains; however, there was some variation in proliferative responses to P6 from different strains in lymphocytes isolated from animals immunized with killed bacteria. The increase in P6-specific antibodies and T-helper cell responses following an IT boost correlated with an increased rate of recruitment of phagocytic cells and enhanced bacterial clearance of both homologous and heterologous bacteria in the lungs. The data suggests that P6 has the potential to afford protection against pulmonary infection by NTHi following the induction of effective antigen-specific B- and T-cell responses in mucosal tissues.

12/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

10278462 BIOSIS NO.: 199090062941
THE PROTECTIVE EFFECT OF VACCINATION AGAINST EXPERIMENTAL PNEUMONIA IN CATTLE WITH HAEMOPHILUS-SOMNUS OUTER MEMBRANE ANTIGENS AND INTERFERENCE BY LIPOPOLYSACCHARIDE
AUTHOR: SILVA S V P S (Reprint); LITTLE P B
AUTHOR ADDRESS: DEP PATHOL, ONTARIO VET COLL, UNIV GUELPH, GUELPH, ONTARIO N1G 2W1**CANADA
JOURNAL: Canadian Journal of Veterinary Research 54 (3): p326-330 1990
ISSN: 0830-9000
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A semi-purified outer membrane anionic (AA) fraction
was isolated from Haemophilus somnus by a modified procedure of
anion exchange chromatography to yield a protein fraction free of
lipopolysaccharides (LPS). The AA fraction (1 mg) was administered
with
or without the homologous lipopolysaccharide (10 μg/kg body
weight) as
vaccines to groups of cattle twice, three weeks apart. A control
group
which did not receive any antigen was included in the trial. Six
weeks
after the first vaccination, the animals were challenged
intratracheally with a virulent pneumonic strain of H. somnus
(70986) and observed for clinical signs of respiratory disease. The
cattle were euthanized six days later and the lungs were evaluated
for
the severity of lesions macroscopically as well as
histopathologically.
Vaccination with AA alone provided the best protection against
pneumonia
as indicated by significantly lower clinical scores, less extensive
gross
lung lesions and mild histopathological lesions with immune cell
infiltration. However, when AA was combined with LPS in the
vaccination,
this protective effect was negated and the animals showed more
detrimental histopathological lesions than the controls.

12/7/4 (Item 1 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0002561949 IP ACCESSION NO: 5901909
Intranasal vaccination with recombinant P6 protein and adamantylamide dipeptide as mucosal adjuvant confers efficient protection against otitis
media and lung infection by nontypeable Haemophilus
influenzae

Bertot, GM; Becker, PD; Guzman, CA; Grinstein, S
Virology Laboratory, Ricardo Gutierrez Children Hospital, Buenos
Aires,
Argentina

Journal of Infectious Diseases, v 189, n 7, p 1304-1312, April 1, 2004
PUBLICATION DATE: 2004

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ISSN: 0022-1899
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

ABSTRACT:
Nontypeable Haemophilus influenzae (NTHi) is a leading etiologic agent of otitis media in children and recurrent respiratory infections in patients with chronic obstructive pulmonary disease. The highly conserved outer membrane protein P6 constitutes a promising vaccine candidate antigen. However, the small amount of P6 produced by this fastidious microorganism renders large-scale production difficult. Controversial data also exist concerning the suitability of recombinant P6 (rP6) as a vaccine antigen. Therefore, we performed a comparative evaluation of the immunogenicity and efficacy of native P6 and rP6 in mice intranasally vaccinated with adamantylamide dipeptide (AdDP) as an adjuvant. High titers of P6-specific serum antibodies were elicited in mice vaccinated with either native P6 or rP6, which cross-recognized both antigens. However, rP6 stimulated stronger mucosal responses. Mice vaccinated with rP6 were protected against both pulmonary and middle-ear infections ($P < 0.01$). This demonstrates that rP6 plus AdDP constitutes a promising vaccine formulation against the most relevant forms of disease caused by NTHi.

12/7/5 (Item 2 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0002053928 IP ACCESSION NO: 4652766
A P5 peptide that is homologous to peptide 10 of OprF from Pseudomonas aeruginosa enhances clearance of nontypeable Haemophilus influenzae from acutely infected rat lung in the absence of detectable peptide-specific antibody

Webb, DC; Cripps, AW
Leukocyte Signaling and Regulation Laboratory, John Curtin School of Medical Research, Australian National University, P.O. Box 334, Canberra City, ACT 2601, Australia, [mailto:Dianne.Webb@anu.edu.au]

Infection and Immunity, v 68, n 1, p 377-381, January 2000
PUBLICATION DATE: 2000

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English

SUMMARY LANGUAGE: English
ISSN: 0019-9567
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts
ABSTRACT:
Nontypeable Haemophilus influenzae (NTHi) is an opportunistic pathogen associated with otitis media and the exacerbation of chronic bronchitis. This study reports the vaccine potential of three peptides representing conserved regions of the NTHi P5 outer membrane protein which have been fused to a promiscuous measles virus F protein T-cell eptitope (MVF). The peptides correspond to a region in surface loop
one (MVF/L1A), the central region of loop four (MVF/L4), and a C-terminal
region homologous to peptide 10 of OprF from Pseudomonas aeruginosa (MVF/H3). Immunization of rats with MVF/H3 was the most efficacious in significantly reducing the number of viable NTHi in both the broncho-alveolar lavage fluid (74%) and lung homogenates (70%), compared to control rats. Importantly, despite significantly increased rates of clearance, immunization with MVF/H3 elicited poor antibody responses, suggesting that cell-mediated rather than humoral responses play
an important role in the enhanced clearance of NTHi in this model.

12/7/6 (Item 3 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0001161896 IP ACCESSION NO: 2788413
Respiratory immunity stimulated by intestinal immunization with purified
nontypeable Haemophilus influenzae antigens.

Cripps, AW; Taylor, DC; Wallace, FJ; Clancy, RL
Discipline Pathol., Faculty Med., Hunter Area Pathol. Serv., John Hunter
Hosp., Locked Bag 1, Newcastle Mail Cent., Newcastle, N.S.W. 2310, Australia
EDITOR: Daum, RS; Granoff, DM; Maekelae, PH; Moxon, ER; van Alphen, L
(eds)

, v 165, p number 1 Suppl., 1992
ADDL. SOURCE INFO: EPIDEMIOLOGY, PATHOGENESIS, AND PREVENTION OF HAEMOPHILUS INFLUENZAE DISEASE., 1992, pp. S199-S201, Journal of Infectious
Diseases [J. INFECT. DIS.], volume 165, number 1 Suppl.
PUBLICATION DATE: 1992

CONFERENCE:
Conference on Epidemiology, Pathogenesis, and Prevention of Haemophilus

influenzae Disease, Veldhoven (Netherlands), 24-28 Sep 1990
DOCUMENT TYPE: Book Monograph; Conference
RECORD TYPE: Abstract
LANGUAGE: English
ISSN: 0022-1899
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts
; Biotechnology Research Abstracts

ABSTRACT:
  Several studies involving experimental rat models of H. influenzae type b (Hib) infections have shown that antibody to outer membrane proteins (OMPs), in particular P1, P2, and P6, can be protective. With the exception of studies using isolated fimbrial proteins and whole OMP, immunity to nontypeable H. influenzae after immunization with purified antigens has not been addressed. Our aim was to evaluate the role of P1, P2, and P6 in stimulating respiratory immunity to infection with nontypeable H. influenzae and thus assess their potential role in vaccine development.

 12/7/7   (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04437816   Genuine Article#: TD021   Number of References: 84
Title: PULMONARY IMMUNITY TO PSEUDOMONAS-AERUGINOSA
Author(s): CRIPPS AW; DUNKLEY ML; CLANCY RL; KYD J
Corporate Source: UNIV CANBERRA,FAC APPL SCI,POB 1/BELCONNEN/ACT 2616/AUSTRALIA/; UNIV NEWCASTLE,FAC MED & HLTH SCI/NEWCASTLE/NSW2308/AUSTRALIA/; AUSTRALIAN INST MUCOSAL IMMUNOL/NEWCASTLE/NSW/AUSTRALIA/
Journal: IMMUNOLOGY AND CELL BIOLOGY, 1995, V73, N5 (OCT), P418-424
ISSN: 0818-9641
Language: ENGLISH   Document Type: ARTICLE
Abstract: Pseudomonas aeruginosa, an oportunistic bacterial pathogen, is a major course of morbidity and mortality in subjects with compromised respiratory function despite the significant advances in therapeutic practices. The bacteria produces an armoury of products which modify its infective niche to ensure bacterial survival. The role of antibody in protection against pulmonary infection remains poorly defined. Protection appears to be associated with opsonizing antibody whilst some other antibody responses may be deleterious and promote further

lung damage. Cell mediated responses are clearly important in protection against infection. This review proposes a vaccine strategy aimed at enhancing specific T cell responses in the lung which, through T cell-derived cytokines, drive the recruitment of neutrophils to the lung and the subsequent activation of these cells results in the clearance of bacteria from the lung.

12/7/8 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0006397133 CAB Accession Number: 19912250537

The protective effect of vaccination against experimental pneumonia in cattle with Haemophilus somnus outer membrane antigens and interference by lipopolysaccharide.

Primal, S. V.; Silva, S.; Little, P. B.
Dr. P.D. Little, Department of Pathology, Ontario Veterinary College, University of Guelph, Guelph, Ontario N1G 2W1, Canada.

Canadian Journal of Veterinary Research volume 54 (3): p.326-330
Publication Year: 1990
ISSN: 0830-9000
Language: English Summary Language: French
Record Type: Abstract
Document Type: Journal article

A semi-purified outer membrane anionic antigen (AA) fraction was isolated from Haemophilus somnus by a modified procedure of anion exchange chromatography to yield a protein fraction free of lipopolysaccharides (LPS). The AA fraction (1 mg) was administered with or without the homologous lipopolysaccharide (10 microg/kg body weight) as a vaccine to groups of cattle twice, three weeks apart. A control group which did not receive any antigen was included in the trial. Six weeks after the first vaccination, the animals were challenged by intratracheal administration of a virulent pneumonic strain of H. somnus (70986) and observed for clinical signs of respiratory disease. The cattle were killed six days later and the lungs were evaluated for the severity of lesions macroscopically and histopathologically. Vaccination with AA alone provided the best protection against pneumonia as indicated

by significantly lower clinical scores, less extensive gross lung lesions and mild histopathological lesions with immune cell infiltration.
However, when AA was combined with LPS in the vaccination, this protective effect was negated and the animals showed more severe histopathological lesions than the controls.
32 reference

12/7/9 (Item 1 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

0001639676 SUPPLIER NUMBER: 1996168463
Potential of preventing Pseudomonas aeruginosa lung infections in cystic fibrosis patients: Experimental studies in animals
Johansen H.K.
Journal: APMIS, Supplement (APMIS SUPPL.), v104, n63, (1-42), 1996, Denmark
PUBLICATION DATE: November 19, 1996 (19961119)
CODEN: APSUE
ISSN: 0903-465X eISSN: 1471-2970
RECORD TYPE: Abstract; New
DOCUMENT TYPE: Review
LANGUAGES: English SUMMARY LANGUAGES: English; Danish

In patients with cystic fibrosis (CF), respiratory tract infections caused by Staphylococcus aureus and Haemophilus influenzae are followed by Pseudomonas aeruginosa with increasing age. Chronic endobronchial lung infection with P. aeruginosa is the leading cause of morbidity and mortality. In Danish CF patients we noted that both onset of initial colonization and chronic lung infection with P. aeruginosa peaked during the winter months which is the season for respiratory virus infections. Virus may therefore pave the way for P. aeruginosa. We established a chronic P. aeruginosa lung in fection in rats by embedding mucoid bacteria in seaweed alginate and installing the beads intratracheally into the lower part of the left lung. Although the rats did not suffer from CF, the antibody responses and the pathologic changes of the lungs mimicked the findings in CF patients. By using this model in normal and athymic rats we showed that the T-cell response during the 'natural' course of the infection played no major role. In a model of acute P. aeruginosa pneumonia we found that the macroscopic inflammatory

response of the lungs was immense and that the natural capacity to clear P.
aeruginosa was very efficient and could not be improved by immunization,
although high serum levels of IgM, IgG and IgA antibodies to P. aeruginosa
alginate, LPS, exotoxin A and sonicate were induced. We developed a method for collecting and measuring IgA in saliva and noted tht mucosal IgA antibodies were induced by vaccination; they did not significantly prevent inflammation, however. In the chronic rat model
we succeeded to improve the survival significantly and to change the inflammatory response subsequent to vaccination from an acute type inflammation dominated by polymorphonuclear leukocytes (PMNs) as in CF patients to a chronic type inflammation dominated by mononuclear leukocytes. Furthermore, we found that rats immunized with an alginate containing vaccine had a significantly earlier cellular shift to a chronic
type inflammation as well as a significant reduction in the severity of the
macroscopic inflammation compared to two other vaccine groups and to nonimmunized controls. Similar results were obtained in rats treated with
the TH1 cytokine, interferon-gamma (IFN-gamma). Several authors have shown
that the lung tissue damage during chronic infection in CF patients is caused by a type III hypersensitivity reaction leading to release of
elastase by PMNs surrounding the bacterial microcolonies. The cellular shift we have induced by vaccination and by IFN-gamma treatment therefore
offers a possible new strategy for improving the clinical course in chronically infected CF patients.

0076208746 EMBASE No: 1995249296
An animal model to study the mechanisms of immunity induced in the respiratory tract by intestinal immunization
Cripps A.W.; Dunkley M.L.; Clancy R.L.; Wallace F.; Buret A.; Taylor D.C.
Hunter Area Pathology Service, Newcastle Mail Center, Newcastle 2310,
Australia
CORRESP. AUTHOR/AFFIL: Cripps A.W.: Hunter Area Pathology Service, Newcastle Mail Center, Newcastle 2310, Australia

Advances in Experimental Medicine and Biology (ADV. EXP. MED. BIOL.) (

United States) September 4, 1995, 371/B (749-753)
CODEN: AEMBA ISSN: 0065-2598
DOCUMENT TYPE: Journal; Conference Paper RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English

The model described can be used to effectively study the mechanisms of immunity to nontypable H. influenzae and P. aeruginosa and to identify bacterial antigens as potential vaccine candidates. Intestinal immunization induces protective immunity in the lung (as measured by enhanced bacterial clearance). In some instances an intratracheal boost is required to induce an optimal response. The role of antibody in pulmonary immunity following intestinal immunization remains equivocal. The presence or level of antibody in the serum or bronchial washings does not correlate with enhanced bacterial clearance.
Intestinally derived T cells, especially T helper cells, from immunised animals are able to transfer significant immunity to naive recipients. There is more rapid recruitment of neutrophils to the immune lung. In addition neutrophils recruited have enhanced function as measured by chemotaxis, chemokinesis, phagocytic capacity and chemiluminescence.

12/7/11 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

0074755812 EMBASE No: 1991262005
Rat model of chronic lung infections caused by non-typable Haemophilus influenzae
Maciver I.; Silverman S.H.; Brown M.R.W.; O'Reilly T.
Pharma Research, Ciba-Geigy Limited, Basel CH-4002, Switzerland
CORRESP. AUTHOR/AFFIL: O'Reilly T.: Pharma Research, Ciba-Geigy Limited, Basel CH-4002, Switzerland

Journal of Medical Microbiology (J. MED. MICROBIOL.) (United Kingdom)
September 26, 1991, 35/3 (139-147)
CODEN: JMMIA ISSN: 0022-2615
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English

Patients with chronic obstructive pulmonary disease (COPD) often have chronic or recurrent pulmonary infections with non-typable Haemophilus influenzae. A model of these infections exploited agar bead vehicles to protect the inoculum from rapid clearance, and a chronic lung infection of at least 42 days duration was established

in rats. This infection induced increases in serum IgG titres to outer-membrane (OM) and lipo-oligosaccharide (LOS) antigens; immunoblotting demonstrated that this humoral response was directed partly
against the outer-membrane proteins (OMPs). Lung lavage fluid also contained an increased titre of IgG antibodies to OM and LOS 42
days after infection. Antibodies produced during infection with one strain
of H. influenzae cross-reacted with OMPs from another, non-typable H. influenzae strain. Despite their encasement in agar beads, pulmonary H. influenzae remained susceptible to amoxycillin. This model of chronic pulmonary infections due to non-typable
H. influenzae appears to resemble the situation in COPD patients and may be useful for experimental therapeutic studies.

12/7/12 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

135209372 CA: 135(15)209372y JOURNAL
Developing a nontypeable Haemophilus influenzae (NTHi) vaccine
AUTHOR(S): Poolman, J. T.; Bakaletz, L.; Cripps, A.; Denoel, P. A.; Forsgren, A.; Kyd, J.; Lobet, Y.
LOCATION: SmithKline Beecham Biologicals, 1330, Rixensart, Belg.
JOURNAL: Vaccine DATE: 2000 VOLUME: 19 NUMBER: Suppl. 1 PAGES: S108-S115 CODEN: VACCDE ISSN: 0264-410X PUBLISHER ITEM IDENTIFIER: 0264-410X(00)00288-7 LANGUAGE: English PUBLISHER: Elsevier Science Ltd.
SECTION:
CA215000 Immunochemistry
IDENTIFIERS: review Haemophilus vaccine lipoprotein D outer membrane protein
DESCRIPTORS:
Lung,disease...
infection; nontypeable H. influenzae vaccine development with lipoprotein D and outer membrane proteins in relation to
Lipoproteins...
LPD (lipoprotein D); nontypeable H. influenzae vaccine development with
lipoprotein D and outer membrane proteins
Haemophilus influenzae... Vaccines...
nontypeable H. influenzae vaccine development with lipoprotein D and
outer membrane proteins
Proteins,specific or class...
OMP (outer membrane protein), OMP26; nontypeable H. influenzae vaccine
development with lipoprotein D and outer membrane proteins
Proteins,specific or class...

OMP (outer membrane protein), P5 (LB1); nontypeable H. influenzae
vaccine development with lipoprotein D and outer membrane proteins
Ear...
otitis; nontypeable H. influenzae vaccine development with
lipoprotein
D and outer membrane proteins in relation to

12/7/13 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

132150389 CA: 132(12)150389s JOURNAL
A P5 peptide that is homologous to peptide 10 of OprF from
Pseudomonas
aeruginosa enhances clearance of non-typeable Haemophilus
influenzae from
acutely infected rat lung in the absence of detectable
peptide-specific
antibody
AUTHOR(S): Webb, Dianne C.; Cripps, Allan W.
LOCATION: The Gadi Research Center, Faculty of Applied Science and
Design, University of Canberra, and The Membrane Biochemistry Group,
Division of Biochemistry and Molecular Biology, John Curtin School of
Medical Research, Australian National University, Canberra City, 2601,
Australia
JOURNAL: Infect. Immun. DATE: 2000 VOLUME: 68 NUMBER: 1 PAGES:
377-381 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English PUBLISHER:
American Society for Microbiology
SECTION:
CA215002 Immunochemistry
IDENTIFIERS: P5 peptide OprF Pseudomonas vaccine nontypeable
Haemophilus
lung clearance
DESCRIPTORS:
Lung... Measles virus... Pseudomonas aeruginosa... Vaccines...
chimeric P5 peptide homologous to OprF peptide from Pseudomonas
aeruginosa contg. measles virus F protein T cell epitope enhances
clearance of non-typeable Haemophilus influenzae from infected
lung in
Haemophilus influenzae...
chimeric P5 peptide homologous to OprF peptide from Pseudomonas
aeruginosa contg. measles virus T cell epitope enhances clearance
of
non-typeable Haemophilus influenzae from infected lung in absence
o
Proteins,specific or class...
F; chimeric P5 peptide homologous to OprF peptide from Pseudomonas
aeruginosa contg. measles virus F protein T cell epitope enhances
clearance of non-typeable Haemophilus influenzae from infected
lung
Peptides,biological studies...

fusion peptides; chimeric P5 peptide homologous to OprF peptide from
Pseudomonas aeruginosa contg. measles virus F protein T cell epitope
enhances clearance of non-typeable Haemophilus influenzae from Proteins,specific or class...
OMP (outer membrane protein); chimeric P5 peptide homologous to OprF
peptide from Pseudomonas aeruginosa contg. measles virus T cell epitope
enhances clearance of non-typeable Haemophilus influenzae f
CAS REGISTRY NUMBERS:
257884-25-6 257941-79-0 257941-80-3 chimeric P5 peptide homologous to
OprF peptide from Pseudomonas aeruginosa contg. measles virus F protein
T cell epitope enhances clearance of non-typeable Haemophilus
influenzae from infected lung in absence of peptide-specific antibody

12/7/14 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

127233551 CA: 127(17)233551m PATENT
Iscom or iscom-matrix comprising a mucus targetting substance and optionally, an antigen
INVENTOR(AUTHOR): Morein, Bror; Lovgren, Bengtsson Karin; Ekstrom, Jill
LOCATION: Swed.
ASSIGNEE: Morein, Bror; Lovgren Bengtsson, Karin; Ekstrom, Jill
PATENT: PCT International ; WO 9730728 A1 DATE: 19970828
APPLICATION: WO 97SE289 (19970220) *SE 96647 (19960221)
PAGES: 144 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: A61K-039/39A
DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN;
CU; CZ; DE; DK; EE; ES; FI; GB; GE; HU; IL; IS; JP; KE; KG; KP; KR; KZ; LC;
LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD;
SE; SG; SI; SK; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; AM; AZ; BY; KG; KZ;
MD; RU; TJ; TM DESIGNATED REGIONAL: KE; LS; MW; SD; SZ; UG; AT; BE; CH; DE
; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI;
CM; GA; GN; ML; MR; NE; SN; TD; TG
SECTION:
CA215002 Immunochemistry

IDENTIFIERS: vaccine antigen iscom mucus targeting mol, glycoside lipid
receptor lymphatic tissue targeting
DESCRIPTORS:
Animal virus... Bacteria(Eubacteria)... Microorganism...
antigens; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Protein receptors...
cholera toxin; vaccine comprises antigen and glycoside/lipid-contg.
iscom or iscom-matrix and mucus/lymphatic tissue-targetting mol.
Blood groups...
fucosed; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Glycoproteins(specific proteins and subclasses)...
gB; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Proteins(specific proteins and subclasses)...
hexon; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Receptors...
lipid-contg.; vaccine comprises antigen and glycoside/lipid-contg.
iscom or iscom-matrix and mucus/lymphatic tissue-targetting mol.
Nasal drug delivery systems...
liq.; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Respiratory tract...
mucosa, upper; vaccine comprises antigen and glycoside/lipid-contg.
iscom or iscom-matrix and mucus/lymphatic tissue-targetting mol.
Lung... Urogenital tract...
mucosa; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Liquid dosage forms(drug delivery systems)...
nasal; vaccine comprises antigen and glycoside/lipid-contg. iscom or
iscom-matrix and mucus/lymphatic tissue-targetting mol.
Virus...
non-enveloped; vaccine comprises antigen and glycoside/lipid-contg.
iscom or iscom-matrix and mucus/lymphatic tissue-targetting mol.
Proteins(specific proteins and subclasses)...
penton base; vaccine comprises antigen and glycoside/lipid-contg. iscom
or iscom-matrix and mucus/lymphatic tissue-targetting mol.
Genes...
product; vaccine comprises antigen and glycoside/lipid-contg. iscom or

```
 12/7/15     (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2009 American Chemical Society. All rts. reserv.

  124115435    CA: 124(9)115435s    PATENT
  Vaccine for nontypable Haemophilus influenzae strain
  LOCATION: USA
  ASSIGNEE: American Cyanamid Co.
  PATENT: European Pat. Appl. ; EP 680765 A1  DATE: 951108
  APPLICATION: EP 95302996 (950502) *US 210394 (940505)
  PAGES: 16 pp.  CODEN: EPXXDW  LANGUAGE: English
  PATENT CLASSIFICATIONS:
    CLASS:  AG1K-039/102
  DESIGNATED COUNTRIES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT;
LI; LU;
NL; PT; SE
  SECTION:
    CA215002 Immunochemistry
    CA263XXX Pharmaceuticals
  IDENTIFIERS: vaccine Haemophilus P5 protein
  DESCRIPTORS:
Antibodies...
    bactericidal; vaccine for nontypable Haemophilus influenzae strain
Proteins,specific or class, P5...
    of outer membrane; vaccine for nontypable Haemophilus influenzae
strain
Cell wall,outer membrane...
    P5 protein of; vaccine for nontypable Haemophilus influenzae
strain
Antiserums... Ear,disease, acute otitis media... Haemophilus
influenzae...
Lung,disease, chronic obstructive... Protein sequences...
Sinus,disease,
sinusitis... Vaccines...
    vaccine for nontypable Haemophilus influenzae strain
  CAS REGISTRY NUMBERS:
172522-16-6P  vaccine for nontypable Haemophilus influenzae strain
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? ds

Set     Items   Description
S1     143930   (MUCOSAL OR LUNG OR TRACHEA? OR INTRATRACHEA?) (5N)
(VACCI-
             N? OR ADMINIST? OR IMMUNIZ?)
S2       1135   S1 AND (HAEMOPHILUS(W)INFLUENZAE OR HAEMOPHILUS OR
H(W)INF-
             LUENZAE)
S3        452   RD S2  (unique items)
S4        370   S3 NOT PY>2004
```

```
S5        238   S4 AND (LUNG OR TRACHEA? OR INTRATRACHEA?)
S6          3   S5 AND (SOLUBLE OR POLYVALENT)
S7          4   S5 AND (FRACTION OR CELLULAR(W)FRACTION OR
CELL(W)FREE)
S8          4   RD S7  (unique items)
S9          4   S8 NOT S6
S10        39   S5 AND CHALLENGE
S11        26   S5 AND (OUTER(W)MEMBRANE OR OMV OR SONICATE)
S12        15   S11 NOT S10
?

---Logging off of Dialog---


? logoff
       30jun09 12:28:59 User226352 Session D1154.3
           $13.68    2.211 DialUnits File5
             $100.04  41 Type(s) in Format  7
          $100.04  41 Types
   $113.72  Estimated cost File5
            $1.34    0.178 DialUnits File6
     $1.34  Estimated cost File6
            $3.91    0.606 DialUnits File24
              $29.70  11 Type(s) in Format  7
           $29.70  11 Types
    $33.61  Estimated cost File24
           $52.83    1.855 DialUnits File34
              $66.24  8 Type(s) in Format  7
           $66.24  8 Types
   $119.07  Estimated cost File34
            $0.60    0.080 DialUnits File40
     $0.60  Estimated cost File40
            $0.72    0.112 DialUnits File41
     $0.72  Estimated cost File41
            $2.53    0.487 DialUnits File45
     $2.53  Estimated cost File45
            $2.56    0.538 DialUnits File50
               $8.56  4 Type(s) in Format  7
            $8.56  4 Types
    $11.12  Estimated cost File50
            $1.08    0.253 DialUnits File65
     $1.08  Estimated cost File65
            $9.30    0.855 DialUnits File71
               $2.60  1 Type(s) in Format  7
            $2.60  1 Types
    $11.90  Estimated cost File71
           $26.30    1.899 DialUnits File72
              $11.49  3 Type(s) in Format  7
           $11.49  3 Types
    $37.79  Estimated cost File72
           $27.24    1.967 DialUnits File73
              $15.32  4 Type(s) in Format  7
```

```
          $15.32  4 Types
    $42.56  Estimated cost File73
            $2.42    0.375 DialUnits File76
     $2.42  Estimated cost File76
            $0.52    0.117 DialUnits File98
     $0.52  Estimated cost File98
            $1.57    0.241 DialUnits File103
     $1.57  Estimated cost File103
            $0.68    0.105 DialUnits File136
     $0.68  Estimated cost File136
            $0.30    0.097 DialUnits File143
     $0.30  Estimated cost File143
            $5.65    1.105 DialUnits File144
               $1.92  1 Type(s) in Format  7
            $1.92  1 Types
     $7.57  Estimated cost File144
            $6.03    1.714 DialUnits File154
     $6.03  Estimated cost File154
            $6.25    1.775 DialUnits File155
               $0.24  1 Type(s) in Format  7
            $0.24  1 Types
     $6.49  Estimated cost File155
            $3.14    0.511 DialUnits File156
     $3.14  Estimated cost File156
            $1.12    0.239 DialUnits File162
     $1.12  Estimated cost File162
            $1.48    0.107 DialUnits File172
     $1.48  Estimated cost File172
            $1.37    0.095 DialUnits File305
     $1.37  Estimated cost File305
            $0.20    0.056 DialUnits File369
     $0.20  Estimated cost File369
            $0.27    0.075 DialUnits File370
     $0.27  Estimated cost File370
            $0.37    0.129 DialUnits File393
     $0.37  Estimated cost File393
           $22.88    1.750 DialUnits File399
              $20.86  7 Type(s) in Format  7
           $20.86  7 Types
    $43.74  Estimated cost File399
            $5.13    0.180 DialUnits File434
     $5.13  Estimated cost File434
            OneSearch, 29 files, 19.713 DialUnits FileOS
     $7.73  TELNET
   $466.17  Estimated cost this search
   $466.19  Estimated total session cost  20.103 DialUnits
Logoff: level 05.25.00 D  12:28:59



Connecting via Winsock to Dialog
```

```
Logging in to Dialog

Trying 31060000009998...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ********
ENTER PASSWORD:
 ********
Welcome to DIALOG

Dialog level 05.25.00D

Last logoff:  30jun09 12:28:59
Logon file405 30jun09 12:30:17
* * *
SYSTEM:HOME
Cost is in DialUnits
Menu System II: D2 version 1.8.0 term=ASCII
                     *** DIALOG HOMEBASE(SM) Main Menu ***

 Information:
  1.  Announcements (new files, reloads, etc.)
  2.  Database, Rates, & Command Descriptions
  3.  Help in Choosing Databases for Your Topic
  4.  Customer Services (telephone assistance, training, seminars,
etc.)
  5.  Product Descriptions

 Connections:
  6.  DIALOG(R) Document Delivery
  7.  Data Star(R)

    (c) 2003 Dialog, a Thomson business.      All rights reserved.

      /H = Help            /L = Logoff          /NOMENU = Command Mode


Enter an option number to view information or to connect to an online
 service.  Enter a BEGIN command plus a file number to search a
database
(e.g., B1 for ERIC).
? b 410

       30jun09 12:30:18 User226352 Session D1155.1
            $0.00    0.257 DialUnits FileHomeBase
     $0.00  Estimated cost FileHomeBase
     $0.00  Estimated cost this search
     $0.00  Estimated total session cost   0.257 DialUnits

File 410:The Chronolog 2009
```

```
       (c) 2009 Dialog. All rts. reserv.

      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi
HILIGHT set on as ''
HILIGHT set on as ''
? b biochem
       30jun09 12:30:21 User226352 Session D1155.2
            $0.00    0.115 DialUnits File410
     $0.00  Estimated cost File410
     $0.00  Estimated cost this search
     $0.00  Estimated total session cost   0.372 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R) 1926-2009/Jun W3
         (c) 2009 The Thomson Corporation
  File   6:NTIS 1964-2009/Jul W1
         (c) 2009 NTIS, Intl Cpyrght All Rights Res
  File  24:CSA Life Sciences Abstracts 1966-2009/Jul
         (c) 2009 CSA.
  File  34:SciSearch(R) Cited Ref Sci 1990-2009/Jun W3
         (c) 2009 The Thomson Corp
  File  40:Enviroline(R) 1975-2008/May
         (c) 2008 Congressional Information Service
*File  40: This file is closed and will no longer update. For
similar data, please search File 76-Environmental Sciences.
  File  41:Pollution Abstracts 1966-2009/Jul
         (c) 2009 CSA.
  File  45:EMCare 2009/Jun W3
         (c) 2009 Elsevier B.V.
  File  50:CAB Abstracts 1972-2009/Jun W4
         (c) 2009 CAB International
  File  65:Inside Conferences 1993-2009/Jun 29
         (c) 2009 BLDSC all rts. reserv.
  File  71:ELSEVIER BIOBASE 1994-2009/Jun W4
         (c) 2009 Elsevier B.V.
*File  71: The file has been reloaded. Accession numbers
have changed.
  File  72:EMBASE 1993-2009/Jun 26
         (c) 2009 Elsevier B.V.
  File  73:EMBASE 1974-2009/Jun 26
         (c) 2009 Elsevier B.V.
  File  76:Environmental Sciences 1966-2009/Jul
         (c) 2009 CSA.
  File  98:General Sci Abs 1984-2009/Jun
         (c) 2009 The HW Wilson Co.
  File 103:Energy SciTec 1974-2009/Jun B1
         (c) 2009 Contains copyrighted material
*File 103: For access restrictions see Help Restrict.
  File 136:BioEngineering Abstracts 1966-2007/Jan
         (c) 2007 CSA.
```

```
*File 136: This file is closed.
  File 143:Biol. & Agric. Index 1983-2009/May
         (c) 2009 The HW Wilson Co
  File 144:Pascal 1973-2009/Jun W4
         (c) 2009 INIST/CNRS
  File 154:MEDLINE(R) 1990-2009/Jun 26
         (c) format only 2009 Dialog
  File 155:MEDLINE(R) 1950-2009/Jun 26
         (c) format only 2009 Dialog
  File 156:ToxFile 1965-2009/Jun W3
         (c) format only 2009 Dialog
  File 162:Global Health 1983-2009/Jun W4
         (c) 2009 CAB International
  File 172:EMBASE Alert 2009/Jun 29
         (c) 2009 Elsevier B.V.
  File 305:Analytical Abstracts 1980-2009/May W3
         (c) 2009 Royal Soc Chemistry
*File 305: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling.  See HELP ALERT.
  File 369:New Scientist 1994-2009/Jun W3
         (c) 2009 Reed Business Information Ltd.
  File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
*File 370: This file is closed (no updates). Use File 47 for more
current
information.
  File 393:Beilstein Database - Abstracts 2008/Q2
         (c) 2008 Beilstein GmbH
  File 399:CA SEARCH(R) 1967-2009/UD=15101
         (c) 2009 American Chemical Society
*File 399: Use is subject to the terms of your user/customer
agreement.
IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.
  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 2006 The Thomson Corp

      Set  Items  Description
      ---  -----  -----------
? e au=dunkley, m.

Ref   Items  Index-term
E1        3  AU=DUNKLEY, LORNA C.
E2       10  AU=DUNKLEY, M
E3       23 *AU=DUNKLEY, M.
E4        1  AU=DUNKLEY, M. B.
E5        1  AU=DUNKLEY, M. J.
E6       22  AU=DUNKLEY, M. L.
E7        2  AU=DUNKLEY, M. P.
E8        1  AU=DUNKLEY, M.L.
E9       20  AU=DUNKLEY, MARGARET
E10       8  AU=DUNKLEY, MARGARET L.
E11       2  AU=DUNKLEY, MARGARET LORRAINE
```

```
E12        1  AU=DUNKLEY, MELANIE J

           Enter P or PAGE for more
? s e2 or e3 or e9
                10  AU=DUNKLEY, M
                23  AU=DUNKLEY, M.
                20  AU=DUNKLEY, MARGARET
       S1       53  AU='DUNKLEY, M' OR AU='DUNKLEY, M.' OR AU='DUNKLEY,
                    MARGARET'
? rd s1

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
       S2       35  RD S1  (unique items)
? s s2 and influenzae
                35  S2
            148521  INFLUENZAE
       S3        6  S2 AND INFLUENZAE
? t s3/7/all
>>>Format 7 is not valid in file 143

 3/7/1     (Item 1 from file: 24)
DIALOG(R)File  24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0001618353       IP ACCESSION NO: 3914428
An important role for intestinally derived T cells in respiratory
defence

Dunkley, M;  Pabst, R;  Cripps, A
Fac. Med. Health Sci., Univ. Newcastle, Australian Inst. Mucosal
Immun., PO
Box 418, Newcastle, NSW 2300, Australia

Immunology Today, v 16, n 5, p 231-236,  1995
ADDL. SOURCE INFO: Immunology Today [IMMUNOL. TODAY], vol. 16, no. 5,
pp.
231-236, 1995
PUBLICATION DATE: 1995

DOCUMENT TYPE: Journal Article;  Review
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0167-5699
FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology
Abstracts

ABSTRACT:
  Margaret Dunkley, Reinhard Pabst and Allan Cripps discuss the role
of
```

intestinally derived T cells in protecting the lung against Gram-negative
bacterial infection. They describe the factors directing T-cell migration
from gut-associated lymphold tissue to lung, and focus on the role of T
cells and T-cell-derived cytokines in bacterial clearance from the lung.

3/7/2 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

149353849 CA: 149(16)353849r PATENT
Method for determining suitability of treatment for asthma or chronic
airway disease
INVENTOR(AUTHOR): Dunkley, Margaret; Clancy, Robert
LOCATION: Australia
ASSIGNEE: Hunter Immunology Limited
PATENT: PCT International ; WO 2008109957 A1 DATE: 20080918
APPLICATION: WO 2008AU359 (20080314) *AU 2007901325 (20070315)
PAGES: 28pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
IPCR/8 + Level Value Position Status Version Action Source Office:

A61K-0039/102	A	I	F	B	20060101	H	AU
A61P-0011/00	A	I	L	B	20060101	H	AU
A61P-0011/06	A	I	L	B	20060101	H	AU

DESIGNATED COUNTRIES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;
BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES;
FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN;
KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MX;
MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG;
SK; SL; SM; SV; SY; TJ; TM; TN; TR; TT DESIGNATED REGIONAL: AT; BE; BG; CH
; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV;
MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;
GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ;
TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
SECTION:
CA215002 Immunochemistry
CA214XXX Mammalian Pathological Biochemistry
IDENTIFIERS: asthma therapy Haemophilus vaccine neutrophil antibody,

chronic airway disease therapy Haemophilus vaccine neutrophil antibody
DESCRIPTORS:
Bronchitis...
chronic; neutrophil count and anti-Haemophilus influenzae IgE as determinants of suitability of oral NTHi vaccine in treatment for asthma or chronic airway disease
Antibodies and Immunoglobulins...
IgE; neutrophil count and anti-Haemophilus influenzae IgE as determinants of suitability of oral NTHi vaccine in treatment for asthma or chronic airway disease
Antiasthmatics... Asthma... Biomarkers... Chronic obstructive pulmonary
disease... Emphysema... Human... Neutrophil... Prophylaxis...
neutrophil count and anti-Haemophilus influenzae IgE as determinants of
suitability of oral NTHi vaccine in treatment for asthma or chronic
airway disease
Haemophilus influenzae...
non-typeable; neutrophil count and anti-Haemophilus influenzae IgE as
determinants of suitability of oral NTHi vaccine in treatment for asthma or chronic airway disease
Vaccines...
oral; neutrophil count and anti-Haemophilus influenzae IgE as determinants of suitability of oral NTHi vaccine in treatment for asthma or chronic airway disease
Outer membrane proteins...
suitability of oral non-typeable Haemophilus influenzae vaccine in treatment for asthma or chronic airway disease in relation to IgE to
Lipoproteins...
16,000-mol.-weight; suitability of oral non-typeable Haemophilus influenzae vaccine in treatment for asthma or chronic airway disease in
relation to IgE to

3/7/3 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

149353848 CA: 149(16)353848q PATENT
Oral Haemophilus vaccine for treatment or prophylaxis of asthma
INVENTOR(AUTHOR): Dunkley, Margaret; Clancy, Robert; Cripps, Allan William; Otczyk, Diana Christine
LOCATION: Australia
ASSIGNEE: Hunter Immunology Limited
PATENT: PCT International ; WO 2008109956 A1 DATE: 20080918
APPLICATION: WO 2008AU358 (20080314) *AU 2007901326 (20070315)
PAGES: 28pp. CODEN: PIXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:
IPCR/8 + Level Value Position Status Version Action Source Office:
A61K-0039/102 A I F B 20060101 H AU
A61P-0011/00 A I L B 20060101 H AU
A61P-0011/06 A I L B 20060101 H AU
DESIGNATED COUNTRIES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;
BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES;
FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN;
KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MX;
MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG;
SK; SL; SM; SV; SY; TJ; TM; TN; TR; TT DESIGNATED REGIONAL: AT; BE; BG; CH
; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV;
MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;
GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ;
TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
SECTION:
CA215002 Immunochemistry
IDENTIFIERS: Haemophilus oral vaccine asthma
DESCRIPTORS:
Antibodies and Immunoglobulins...
IgE; oral non-typeable Haemophilus influenzae vaccine in treatment or
prophylaxis of asthma
Haemophilus influenzae...
non-typeable; oral non-typeable Haemophilus influenzae vaccine in
treatment or prophylaxis of asthma
Antiasthmatics... Asthma... Biomarkers... Human... Neutrophil... Outer membrane proteins... Prophylaxis...
oral non-typeable Haemophilus influenzae vaccine in treatment or
prophylaxis of asthma
Vaccines...
oral; oral non-typeable Haemophilus influenzae vaccine in treatment or
prophylaxis of asthma
Lipoproteins...
16,000-mol.-weight; oral non-typeable Haemophilus influenzae vaccine in
treatment or prophylaxis of asthma

3/7/4 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

149353836 CA: 149(16)353836j PATENT
Methods for evaluation of oral vaccines
INVENTOR(AUTHOR): Dunkley, Margaret; Clancy, Robert
LOCATION: Australia
ASSIGNEE: Hunter Immunology Limited
PATENT: PCT International ; WO 2008109958 A1 DATE: 20080918
APPLICATION: WO 2008AU360 (20080314) *AU 2007901340 (20070315)
PAGES: 30pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
IPCR/8 + Level Value Position Status Version Action Source Office:

A61K-0039/07	A	I	F	B	20060101	H AU
A61K-0039/09	A	I	L	B	20060101	H AU
A61K-0039/085	A	I	L	B	20060101	H AU
A61K-0039/104	A	I	L	B	20060101	H AU
A61P-0031/04	A	I	L	B	20060101	H AU

DESIGNATED COUNTRIES: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR;
BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES;
FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN;
KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MX;
MY; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RS; RU; SC; SD; SE; SG;
SK; SL; SM; SV; SY; TJ; TM; TN; TR; TT DESIGNATED REGIONAL: AT; BE; BG; CH
; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LT; LU; LV;
MC; MT; NL; NO; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;
GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ;
TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM
SECTION:
CA215001 Immunochemistry
CA202XXX Mammalian Hormones
IDENTIFIERS: oral vaccine biomarker T cell proliferation
DESCRIPTORS:
Biomarkers... Blood analysis... Cell proliferation... C-reactive protein...
Human... Interleukin 6... Interleukin 8... Lactoferrins... Reactive oxygen
species... Saliva... Sputum... T cell... Tumor necrosis factors...
antigen-specific T-cell proliferation and mol. markers of efficacy of
oral vaccination
Candida albicans... Escherichia coli... Eubacteria... Fungi... Moraxella...
Mycoplasma... Pseudomonas... Streptococcus...
antigen-specific T-cell proliferation and mol. markers of efficacy of

oral vaccination against
Interferons...
γ; antigen-specific T-cell proliferation and mol. markers of
efficacy of oral vaccination
Antibodies and Immunoglobulins...
IgG; antigen-specific T-cell proliferation and mol. markers of
efficacy
of oral vaccination
Respiratory system,disease...
infection; antigen-specific T-cell proliferation and mol. markers
of
efficacy of oral vaccination
Haemophilus influenzae...
non-typeable; antigen-specific T-cell proliferation and mol.
markers of
efficacy of oral vaccination against
Vaccines...
oral; antigen-specific T-cell proliferation and mol. markers of
efficacy of oral vaccination
Cytokines...
proinflammatory; antigen-specific T-cell proliferation and mol.
markers
of efficacy of oral vaccination
CAS REGISTRY NUMBERS:
10102-43-9 analysis, antigen-specific T-cell proliferation and mol.
markers of efficacy of oral vaccination
9001-63-2 71160-24-2 antigen-specific T-cell proliferation and mol.
markers of efficacy of oral vaccination

3/7/5 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

143227923 CA: 143(13)227923y PATENT
A vaccine formulated for administration to mucosa of the lungs
INVENTOR(AUTHOR): Dunkley, Margaret
LOCATION: Australia
ASSIGNEE: The University of Newcastle Research Associates Limited
PATENT: PCT International ; WO 200577409 A1 DATE: 20050825
APPLICATION: WO 2005AU214 (20050218) *AU 2004900826 (20040218)
PAGES: 44 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: A61K-039/116A; A61K-039/02B; A61P-037/02B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR;
BW; BY;
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI;
GB; GD;
GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK;
LR; LS;
LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG;
PH; PL;

PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ
; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;
BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU;
MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW;
ML; MR; NE; SN; TD; TG
  SECTION:
    CA215002 Immunochemistry
    CA263XXX Pharmaceuticals
  IDENTIFIERS: vaccine lung mucosa delivery
  DESCRIPTORS:
Immunostimulants...
    adjuvants; vaccine formulated for administration to mucosa of the lungs
Microorganism...
    antigens of; vaccine formulated for administration to mucosa of the
    lungs
Infection...
    bacterial; vaccine formulated for administration to mucosa of the lungs
Drug delivery systems...
    carriers; vaccine formulated for administration to mucosa of the lungs
Bronchi,disease... Inflammation...
    chronic bronchitis; vaccine formulated for administration to mucosa of
    the lungs
Infection...
    cutaneous; vaccine formulated for administration to mucosa of the lungs
Infection...
    digestive tract; vaccine formulated for administration to mucosa of the
    lungs
T cell(lymphocyte)...
    helper cell/inducer, TH1, immune response entailing; vaccine formulated
    for administration to mucosa of the lungs
T cell(lymphocyte)...
    helper cell/inducer, TH2, immune response entailing; vaccine formulated
    for administration to mucosa of the lungs
Lung,disease... Mouth,disease... Nose... Pharynx... Respiratory system,disease... Digestive tract,disease... Vagina,disease... Urinary system,disease... Kidney,disease... Eye,disease... Skin,disease... Yeast...

infection; vaccine formulated for administration to mucosa of the lungs
Respiratory system...
microflora of; vaccine formulated for administration to mucosa of the
lungs
Lung...
mucosa; vaccine formulated for administration to mucosa of the lungs
Infection...
ocular; vaccine formulated for administration to mucosa of the lungs
Infection...
oral; vaccine formulated for administration to mucosa of the lungs
Ear,disease... Inflammation...
otitis media; vaccine formulated for administration to mucosa of the
lungs
Antigens...
polyvalent; vaccine formulated for administration to mucosa of the
lungs
Drug delivery systems... Infection...
pulmonary; vaccine formulated for administration to mucosa of the lungs
Infection...
renal; vaccine formulated for administration to mucosa of the lungs
Immunity...
systemic; vaccine formulated for administration to mucosa of the lungs
Vaccines... Immunostimulants... Sonication... Filtration... Particle size
distribution... Infection... Mycosis... Haemophilus influenzae... Moraxella
catarrhalis... Streptococcus pneumoniae... Pseudomonas aeruginosa...
Helicobacter pylori... Staphylococcus aureus... Chlamydia pneumoniae...
Chlamydia trachomatis... Streptococcus pyogenes... Escherichia coli...
Mycoplasma... Pore size distribution... Pneumonia... Cystic fibrosis...
Asthma...
vaccine formulated for administration to mucosa of the lungs
Infection...
vaginal; vaccine formulated for administration to mucosa of the lungs

3/7/6 (Item 5 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

136058847 CA: 136(4)58847z PATENT

Immunotherapy or treating bacterial or viral infection at mucosal surfaces with probiotics, and compositions therefor
INVENTOR(AUTHOR): Clancy, Robert; Pang, Gerald; Borody, Thomas; Dunkley,
Margaret; Conway, Patricia Lynne
LOCATION: Australia
ASSIGNEE: Mucoprotec Pty. Ltd.
PATENT: PCT International ; WO 200197821 A1 DATE: 20011227
APPLICATION: WO 2001AU726 (20010619) *AU 20008213 (20000619) *AU 20009948
(20000906)
PAGES: 38 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: A61K-035/74A; A61K-039/02B; A61K-039/04B; A61K-039/07B; A61P-031/04B; A61P-001/00B; A61P-001/04B; A61P-001/14B; A61P-011/00B; A61P-015/02B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;
GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;
LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI;
SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG;
KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ
; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC;
NL; PT; SE; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG
SECTION:
CA263006 Pharmaceuticals
IDENTIFIERS: probiotic antibiotic vaccine immunotherapy mucosa infection,
Lactobacillus immunotherapy mucosa infection, Mycobacterium immunotherapy mucosa infection
DESCRIPTORS:
Immunoglobulins...
A; immunotherapy for microbial infections at mucosal surfaces with probiotic compns.
Immunoglobulins...
A1; immunotherapy for microbial infections at mucosal surfaces with
probiotic compns.
Drug delivery systems...
capsules; immunotherapy for microbial infections at mucosal surfaces
with probiotic compns.
Fatigue,biological...
chronic fatigue syndrome; immunotherapy for microbial infections at

```
    mucosal surfaces with probiotic compns.
Mucous membrane...
    priming; immunotherapy for microbial infections at mucosal
surfaces
    with probiotic compns.
Intestinal bacteria...
    probiotic; immunotherapy for microbial infections at mucosal
surfaces
    with probiotic compns.
Drug delivery systems...
    solids; immunotherapy for microbial infections at mucosal
surfaces with
    probiotic compns.
Drug delivery systems...
    tablets; immunotherapy for microbial infections at mucosal
surfaces
    with probiotic compns.
  CAS REGISTRY NUMBERS:
10102-43-9  biological studies, immunotherapy for microbial
infections at
    mucosal surfaces with probiotic compns.
?

---Logging off of Dialog---


? logoff
       30jun09 12:31:57 User226352 Session D1155.3
            $0.10    0.017 DialUnits File5
     $0.10  Estimated cost File5
            $0.13    0.017 DialUnits File6
     $0.13  Estimated cost File6
            $0.61    0.095 DialUnits File24
               $2.70  1 Type(s) in Format  7
            $2.70  1 Types
     $3.31  Estimated cost File24
            $0.64    0.022 DialUnits File34
     $0.64  Estimated cost File34
            $0.17    0.022 DialUnits File40
     $0.17  Estimated cost File40
            $0.14    0.022 DialUnits File41
     $0.14  Estimated cost File41
            $0.12    0.022 DialUnits File45
     $0.12  Estimated cost File45
            $0.24    0.050 DialUnits File50
     $0.24  Estimated cost File50
            $0.26    0.062 DialUnits File65
     $0.26  Estimated cost File65
            $0.24    0.022 DialUnits File71
     $0.24  Estimated cost File71
            $0.39    0.028 DialUnits File72
     $0.39  Estimated cost File72
```

```
          $0.23    0.017 DialUnits File73
     $0.23  Estimated cost File73
          $0.58    0.090 DialUnits File76
     $0.58  Estimated cost File76
          $0.07    0.017 DialUnits File98
     $0.07  Estimated cost File98
          $0.07    0.011 DialUnits File103
     $0.07  Estimated cost File103
          $0.18    0.028 DialUnits File136
     $0.18  Estimated cost File136
          $0.05    0.017 DialUnits File143
     $0.05  Estimated cost File143
          $0.11    0.022 DialUnits File144
     $0.11  Estimated cost File144
          $0.08    0.022 DialUnits File154
     $0.08  Estimated cost File154
          $0.08    0.022 DialUnits File155
     $0.08  Estimated cost File155
          $0.10    0.017 DialUnits File156
     $0.10  Estimated cost File156
          $0.34    0.073 DialUnits File162
     $0.34  Estimated cost File162
          $0.31    0.022 DialUnits File172
     $0.31  Estimated cost File172
          $0.16    0.011 DialUnits File305
     $0.16  Estimated cost File305
          $0.08    0.022 DialUnits File369
     $0.08  Estimated cost File369
          $0.06    0.017 DialUnits File370
     $0.06  Estimated cost File370
          $0.06    0.022 DialUnits File393
     $0.06  Estimated cost File393
          $4.39    0.336 DialUnits File399
            $14.90  5 Type(s) in Format  7
         $14.90  5 Types
    $19.29  Estimated cost File399
          $0.80    0.028 DialUnits File434
     $0.80  Estimated cost File434
          OneSearch, 29 files,  1.176 DialUnits FileOS
     $0.53  TELNET
    $28.92  Estimated cost this search
    $28.92  Estimated total session cost   1.548 DialUnits
Logoff: level 05.25.00 D  12:31:57
```